RESEARCH MEMORANDUM

AERODYNAMIC CHARACTERISTICS INCLUDING PRESSURE
DISTRIBUTIONS OF A FUSELAGE AND THREE
COMBINATIONS OF THE FUSELAGE
WITH SWEPT-BACK WINGS AT
HIGH SUBSONIC SPEEDS

By Fred B. Sutton and Andrew Martin

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NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

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SUMMARY

As part of an NACA transonic research program, a series of wing-fuselage combinations varying chiefly in wing plan form is being investigated. In the part of the investigation reported herein, three representative model wings of the series were tested at Mach numbers up to 0.94 in the Ames 16-foot high-speed wind tunnel. All these model wings had NACA 65A006 sections parallel to the plane of symmetry.

Force and pitching-moment data and tabulated pressure measurements are presented for the wing-fuselage combinations and for the fuselage alone. Downwash angles and dynamic-pressure characteristics measured at probable horizontal-tail locations are shown. Also presented are tuft studies of the wing-fuselage combinations, approximate effects of wing elasticity on lift and pitching moment, and a comparison of data from this investigation with theory and with results from investigations in the langley high-speed 7- by 10-foot wind tunnel utilizing the transonic-bump technique.

Results show that lift—curve slopes for all the wings investigated increased with Mach number. Compressibility effects on drag were generally small. More abrupt changes in stability occurred at lower lift coefficients for the wing with 45° of sweepback and an aspect ratio of 6 than for the other wing—fuselage combinations. Slight increases in static longitudinal stability were observed at the higher Mach numbers for all the wings investigated.

A comparison of data from this investigation with that from investigations of similar models on the transonic bump in the Langley high—speed 7— by 10—foot wind tunnel generally shows poor correlation quantitatively; agreement qualitatively is fair. Possible reasons for this lack of agreement are suggested.

Results of this investigation indicate large effects of aeroelastic deformation on the lift-curve slopes and on the longitudinal stability of the models. The wing with 45° of sweepback and an aspect ratio of 6 indicated a maximum decrease in lift-curve slope of approximately 30 percent and a forward shift in neutral point of approximately 10 percent. Smaller aeroelastic effects were observed for the other wing-fuselage combinations.

INTRODUCTION

A coordinated transonic research program has been established by a special NACA transonic subcommittee. An objective of this program is to investigate the relative importance of various wing-plan-form variables and to provide experimental data for a wide range of wing plan forms, particularly at transonic speeds. An extensive investigation of these variables has been made in the Langley high-speed 7- by 10-foot wind tunnel utilizing the transonic bump, which provides a method of testing models at Mach numbers near unity.

In order to obtain data at higher Reynolds numbers than were attainable in the Langley high-speed 7- by 10-foot wind-tunnel investigations, three representative model wings of the series tested in that wind tunnel were tested in the Ames 16-foot high-speed wind tunnel at Mach numbers up to 0.94 and Reynolds numbers which varied between 2.6 and 5.1 million. The wings were tested in combination with a fuselage similar to the one used in the 7- by 10-foot wind-tunnel investigations. The results are reported herein and are compared with results for three similar model wings tested on the transonic bump (references 1, 2, and 3).

NOTATION

The coefficients and symbols used in this report are defined as follows:

$$C_D$$
 drag coefficient $\left(\frac{\text{drag}}{q_O S}\right)$

$$C_{L}$$
 lift coefficient $\left(\frac{\text{lift}}{q_{O}S}\right)$

 ${\tt C_m}$ pitching moment about the quarter chord of the wing mean aerodynamic

$$\operatorname{chord}\left(\frac{\operatorname{\underline{pitching\ moment}}}{\operatorname{\underline{q_oS\overline{c}}}}\right).$$

A aspect ratio $\left(\frac{b^2}{S}\right)$

M Mach number

P pressure coefficient $\left(\frac{p-p_0}{q_0}\right)$

S wing area, square feet

V velocity, feet per second

a.c. aerodynamic center

b wing span, feet

c wing chord parallel to the free stream, feet

 \overline{c} wing mean aerodynamic chord $\left(\frac{\int_{o}^{b/2}c^{2}dy}{\int_{o}^{b/2}c^{2}dy}\right)$, feet

p static pressure, pounds per square foot

q dynamic pressure $\left(\frac{1}{2} \rho V^2\right)$, pounds per square foot

y lateral distance from the model plane of symmetry, feet

α angle of attack of wing-root chord line, degrees

ε downwash angle relative to the free stream, degrees

 θ angle of twist of wing chord relative to the wing-root chord, positive with trailing edge up, degrees

 θ_t angle of twist at the wing tip for an equivalent linear spanwise distribution of twist, degrees

A angle of sweepback of the wing quarter-chord line, degrees

 λ taper ratio $\left(c_t/c_r \right)$

 ρ mass density of air, slugs per cubic foot

Subscripts

o free_stream conditions

- r wing root
- t wing tip
- u uncorrected for tunnel-wall effects

MODEL AND APPARATUS

One of the model wing-fuselage combinations mounted in the Ames 16-foot high-speed wind tunnel is shown in figure 1. Dimensions and details of the various models tested are given in figures 2 and 3.

The fuselage was a body of revolution with a fineness ratio of 12 modified to accommodate a sting-type model support by removing the rear one-sixth of the body and increasing the diameter slightly at the rear end. The increased diameter was faired forward with straight-line elements to the points of tangency with the basic shape (fig. 2(a)). These changes resulted in a fuselage fineness ratio of 10. The model fuselage was constructed of steel and aluminum sections machined to shape. Ninety pressure orifices were placed along the right side of the fuselage at fifteen transverse sections as shown in figure 2(b).

The wings were constructed with a thin layer of a tin-bismuth alloy over steel spars and were approximately 30 percent as rigid as solid steel wings of the same dimensions. One hundred pressure orifices were installed in the right half of each wing at five sections parallel to the air stream (fig. 3(b)).

A sting-type model-support system was used with a wire-resistance strain-gage balance enclosed in the fuselage to measure lift, drag, and pitching moment. Tubes from the pressure orifices in the models were led through the model-support system to multiple manometers where the pressure data were recorded photographically. The angle of attack was indicated by means of a pendulum-operated selsyn transmitter, also enclosed in the fuselage. Wing-tip angles were measured visually with a protractor attached to one of the wind-tunnel windows.

A survey rake used to measure downwash angles and dynamic pressures was clamped to the support sting just behind the fuselage. The rake was equipped with 10 calibrated pitch heads for determining downwash angles. Static—pressure orifices on each pitch head and 20 total—pressure tubes were provided for the dynamic—pressure survey. Figures 1 and 2(a) show the survey rake in place behind the model and figure 4 presents dimensions and details of the rake.

TESTS

Test Conditions

Force and pressure measurements were made on the fuselage alone and on the three wing-fuselage combinations. Angles of attack of the wing tips were measured to determine the degree of twist of the wings under the aerodynamic loads. Downwash angles and dynamic pressures were measured at probable horizontal-tail locations. were made of the flow over the wing-fuselage combinations.

The tests covered a Mach number range from 0.40 to 0.94. Reynolds number varied from approximately 3.2 million to 5.1 million based on the mean aerodynamic chord of the wing with an aspect ratio of 4. The Reynolds number for the wings with an aspect ratio of 6 varied from approximately 2.6 million to 4.2 million. The angle—of-attack range was from -40 to the highest positive angles attainable within the structural limits of the model wings.

Test Mach numbers were maintained within ±0.5 percent of the indicated values. It is estimated that angle-of-attack measurements were accurate to ±0.1° and wing-tip angles were read to ±0.2°. Downwash angles are estimated to be accurate to within ±0.20 of the values shown.

Corrections

Induced tunnel-wall effects. - Corrections for the effects of the tunnel walls on the induced flow angles were computed by the method of reference 4. The corrections added to the angle of attack and to the drag coefficient were as follows:

$$\Delta \alpha = 0.302 \text{ C}_{L}$$

 $\Delta C_{D} = 0.00526 \text{ C}_{L}^{2}$

$$\Delta C_D = 0.00526 C_L^2$$

No corrections have been made to the downwash data for induced tunnel-wall effects, but it is estimated that the magnitude of such corrections would be approximately one and one-half times the correction shown for angle of attack. No corrections have been applied to the pressure data for induced tunnel-wall effects.

Constriction.— Constriction effects were calculated by the method of reference 5. The magnitude of the corrections is shown below:

Corrected Mach number	Uncorrected Mach number
0.400	0.400
.600	.600
.700	•698
•750	. 747
.800	•797
.820	.816
.840	•833
. 860	.852
.880	.871
•900	.888
•920	•907
• 940	•922

No account was taken of the sweepback angle of the wings in computing either the induced wind-tunnel-wall effects or the constriction corrections.

Sting interference.— In order to correct partially the drag data for sting interference, static pressures were measured at the base of the model fuselage. The difference between these measured base pressures and the free-stream static pressure was used in conjunction with the fuselage cross-sectional area at the base of the model to calculate increments that would correct the drag coefficients approximately to what they would be with free-stream static pressure at the base of the model. The following increments, calculated in this manner, were added to the measured drag coefficients:

Corrected	ΛC
Mach number	D
0.400	0.0007
. 600	.0011
•700	.0011
•750	.0011
.800	.0011
.820	.0011
. 840	.0012
. 860	.0012
. 880	.0013
•900.	•0016
•920	•0017
•940	•0020

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The corrections were unaffected by variation of angle of attack. The effect of the wind-tunnel longitudinal pressure gradient on drag was negligible.

Aeroelasticity. - The model wings investigated deformed elastically under the aerodynamic loads to which they were subjected. These deformations, for the most part, appeared as wing bending which, for the swept wings, caused a relative rotation of the streamwise chords, resulting in an effective twist along the spans of the wings. In the interest of making the results of the present investigation more convenient for the design of wings of different stiffnesses and hence subject to different aeroelastic effects, it would be desirable to correct the present results for aeroelasticity and to thereby reduce them to rigid-wing characteristics that could be adjusted then for the aeroelastic effects of actual wings of any stiffness; or alternatively, to describe the elastic deformation of the test wings so that their deformed shapes could be used as the starting point from which to adjust for the aeroelastic effects of any actual wing. Unfortunately, it has been impossible to do either with any degree of exactness. However, an approximation of the aeroelastic twist of the test wings and their effects on the slopes of the lift curves and the pitching-moment curves for the model wings used in this investigation are shown in figures 5 and 6.

The spanwise variations of twist shown by the solid lines in figure 5(a) were calculated on the basis of the elastic properties of the model wing structures, assuming linear spanwise distribution of lift. Figure 5(a) also shows an assumed linear twist distribution for the wings tested. It was found by the method of reference 6 (Weissinger) that the linear twist distribution shown is approximately equivalent to the calculated twist distributions in its effect on the aerodynamic characteristics of the wings. This linear distribution was used in conjunction with the measured wing—tip deflection angles, the measured lift on the wings, and the free—stream dynamic pressure to calculate the equivalent wing—tip twist per unit lift coefficient shown in figure 5(b) for various Mach numbers. It is to be noted that the resulting values of equivalent wing—tip twist shown in figure 5(b) are approximately 20 percent larger than the measured values.

To obtain a measure of the effect of the elasticity of the model wings on the lift and moment characteristics, the computed characteristics of rigid wings are compared with the observed characteristics of the elastic models. The starting point was the elastic wing at a lift coefficient of 0.2 for which (1) the angle of attack and pitching-moment coefficients were known from the present experimental investigation, and (2) the magnitude of the equivalent tip twist was determined from figure 5(b). Next, for a rigid wing having this twist, the angle of attack and the pitching-moment coefficient for zero lift were calculated by means of the charts of reference 6. The lift-curve and the

pitching-moment-curve slopes for the rigid wing were then computed from the following relations:

$$\left(\frac{dC_L}{d\alpha}\right)_{\text{rigid}} = \frac{0.2}{\alpha_{0.2} - \alpha_0}$$

$$\left(\frac{dC_{m}}{dC_{L}}\right)_{\text{rigid}} = \frac{C_{m_{0.2}} - C_{m_{0}}}{0.2}$$

where the subscripts refer to the lift coefficients at which the values were taken. These rigid—wing values were then compared with the meas—ured elastic—wing values for zero lift. The comparisons are shown in figure 6 as the ratios of rigid—wing to elastic—wing lift—curve slopes, and as the difference between rigid—wing and elastic—wing pitching—moment—curve slopes.

The results in figure 6 include such viscous effects as appeared in the elastic-wing data over the lift interval used in the computation of the rigid-wing characteristics (lift coefficient 0 to 0.2). The results of figure 6 are believed to be applicable at moderately higher lift coefficients as long as the wing lift and pitching-moment characteristics remain approximately linear. However, these results will not apply when the wing characteristics depart from linearity since this is an indication of an appreciable change in viscous effects.

No corrections have been made to the drag data for the deformation of the model wings under the air loads.

Balance interaction.— No corrections were made for interaction of lift and pitching moment on the balance drag readings since the degree of interaction varied during the investigation. In general, this effect was small and caused the drag readings to be slightly high at the higher lift coefficients. Interaction between the other balance components was negligible. While the precision of the force and moment data is not indicated, the data presented herein, with the exception of a few points at high lift coefficients, are plotted within the accuracy of the straingage balance.

Tares. - Corrections were made throughout the angle-of-attack range to account for the static tares due to the weight of the model.

RESULTS AND DISCUSSION

Pressure Measurements

The pressures measured on the fuselage and on the three wing-fuselage combinations are presented in coefficient form in tables I to VII. Each table shows the pressure coefficients at various stations on the wings or the fuselage for various Mach numbers and angles of attack. The designations of the wing and fuselage stations used in the tables are shown in figures 2(b) and 3(b). Table I shows the pressure coefficients measured on the fuselage alone. Tables II, III, and IV show pressure coefficients on the fuselage when in combination with the three different wings. Tables V, VI, and VII show pressure coefficients on the three different wings in combination with the fuselage.

To expedite publication of these results, the pressure data have not been analyzed. However, typical plots of pressure coefficients measured at 75 percent of the semispan on the wing having 45° of sweep-back and an aspect ratio of 4 are shown in figure 7 for several Mach numbers.

Basic Aerodynamic Characteristics

Lift, drag, and pitching-moment characteristics of the three swept-back wings in combination with the fuselage are presented in figures 8, 9, and 10 without correction for elastic distortion under aerodynamic load. The variation of lift coefficient with angle of attack is shown in figure 8. Due to structural limitations of the models, maximum lift was not reached for any of the models. The variation of pitching moment with lift is shown in figure 10. At low Mach numbers, the wing with 45° of sweepback and an aspect ratio of 6 became very unstable at a lift coefficient of approximately 0.45; whereas comparable changes in stability are delayed on the other wings to a lift coefficient of approximately 0.6. The force and moment data for the fuselage alone are presented in figure 11. The coefficients are based on the total wing area and on the mean aerodynamic chord of the wings having an aspect ratio of 6.

Lift-Curve Slopes

The variations of lift-curve slope with Mach number at a lift coefficient of 0.2 are shown in figure 12 for the three wing-fuselage combinations. Measured slopes, measured slopes corrected for aeroelastic effects, the transonic-bump data from references 1, 2, and 3, and the theoretical variations of the lift-curve slopes with Mach number are shown. The theoretical variations of lift-curve slope with Mach number were calculated by the method of reference 7, using an application of the Prandtl-Glauert rule. These theoretical variations were then applied to the slopes which were measured at 0.40 Mach number and corrected for aeroelastic effects.

Lift-curve slopes generally increased with Mach number for all the plan forms tested; however, a reversal of this trend is indicated at the highest Mach number of the tests. The theoretical variation of lift-curve slope with Mach number was less than the measured variation corrected for elasticity.

The data from this investigation show some qualitative agreement with the transonic-bump data of references 1, 2, and 3, but agreement is poor quantitatively. It is believed the lack of agreement is due, at least in part, to the low Reynolds numbers of the bump tests and to the basic limitations of the bump method of testing (reference 7).

The effects of aeroelastic distortion on the lift-curve slopes were large. At the highest Mach number of the test, the model distortion caused a 30-percent reduction in lift-curve slope of the wing with 45° of sweepback and an aspect ratio of 6. Smaller effects were calculated for the other wings. These results serve to emphasize the importance of aeroelastic effects on the aerodynamic characteristics of thin swept-back wings, not only from the standpoint of obtaining reliable data from wind-tunnel tests, but also with regard to the performance of the airplane. For example, the structure of the model wing with 450 of sweepback, an aspect ratio of 6, and NACA 65A006 sections was such that its flexibility was about the same as the flexibility of a geometrically similar airplane wing designed for a wing loading of 60 pounds per square foot and a load factor of 5. The other two model wings were considerably less flexible in comparison with typical airplane construction. Since the dynamic pressure at the highest Mach number of the tests corresponded to a flight altitude of 15,000 feet, it is evident that aircraft flying at high subsonic speeds and moderate altitudes may be susceptible to large effects of aeroelastic deformations. All the performance parameters of the airplane which depend upon the spanwise distribution of lift will be affected, including the lift-curve slope, longitudinal stability, induced drag, downwash distribution, and wing bending moments.

Static-Longitudinal Stability

The variation of the stability parameter dC_m/dC_L with Mach number is shown for 0.2 lift coefficient in figure 13. Measured data, measured

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data corrected for aeroelasticity, and data from the transonic-bump tests reported in references 1, 2, and 3 are presented. Aeroelastic effects were large, causing a maximum increase of pitching-moment-curve slope of 0.097 for the wing with 450 of sweepback and an aspect ratio of 6. This increase is equivalent to a forward shift of the neutral point of almost 10 percent of the mean aerodynamic chord. In general, static longitudinal stability corrected for aeroelasticity increased with Mach number for all the plan forms investigated. The wing with 45° of sweepback and an aspect ratio of 4 and the wing with 35° of sweepback and an aspect ratio of 6 indicated large stability increases at the higher Mach numbers. In general, stability results from this investigation are in poor agreement with those from the transonic-bump tests. The transonic-bump data indicate large decreases in stability beginning at 0.2 to 0.3 lift coefficients for the various plan forms; whereas the data presented in figure 10 show instability beginning at 0.4 to 0.6 lift coefficients. The probable reasons for these differences have been discussed in the section on lift-curve slope.

Drag

The variations of drag coefficient with Mach number at lift coefficients of 0, 0.2, and 0.4 are presented in figure 14 for the three wingfuselage combinations. Data from this investigation are compared with transonic-bump data from references 1, 2, and 3. In general, Mach number effects on the drag coefficients over the speed range of this investigation were small; the drag-divergence Mach number was not reached for any of the wings. It is believed that the decreases in drag coefficient with increasing Mach number shown at the higher lift coefficient are partially due to aeroelastic deformation of the wings. Drag coefficients from this investigation are considerably lower than the values shown in references 1, 2, and 3. The drag data, presented herein, on the whole agree more closely with results from other investigations of similar and nearly similar wing-fuselage configurations than do the transonic-bump data (reference 7).

Downwash and Dynamic Pressure

Downwash angles and graiients are shown for the wing-fuselage combinations in figures 15 and 16. Downwash gradients were maximum near the extended plane of the wing chord and decreased with increase in distance above this plane. The gradients shown (fig. 16) were measured 12 inches from the plane of symmetry of the model. Measurements made 6 inches from the plane of symmetry of the model (fig. 15) show the effect of the fuselage on the wing wake.

The results of the dynamic-pressure surveys are shown in figure 17. They indicate that at the higher Mach numbers the dynamic pressures at the center of the wing wake were approximately 10 to 15 percent less than free-stream dynamic pressure. The vertical displacement of the wake center with increase in angle of attack is apparent.

Tuft Studies

Figures 18, 19, and 20 show tufts on the three wing-fuselage combinations. The pictures indicate the spanwise boundary-layer flow due to sweepback and the stall progression from the tip inward with increase in angle of attack. The leading-edge type of separation common to thin wings with small leading-edge radii is also indicated.

CONCLUSIONS

The results of this investigation indicate the following conclusions:

- l. In general, lift—curve slopes for all the wings investigated increased with Mach number. Compressibility effects on drag coefficients were generally small. More abrupt changes in stability occurred at lower lift coefficients for the wing with 45° sweepback and an aspect ratio of 6 than for the other wing—fuselage combinations. Slight increases in static—longitudinal stability were observed at the higher Mach numbers for all the wings investigated.
- 2. A comparison of data from this investigation with those from investigations of similar models on the transonic bump in the langley high-speed 7- by 10-foot wind tunnel showed generally poor correlation quantitatively; agreement qualitatively was fair. It is believed that the lack of agreement was due, at least in part, to the low Reynolds numbers of the bump tests and to inherent limitations of the bump method of testing.
- 3. Results of this investigation indicate large effects of aerc-elastic deformation on the lift-curve slopes and on the longitudinal stability of the models. The wing with 45° of sweepback and an aspect ratio of 6 underwent a maximum decrease in lift-curve slope of approximately 30 percent and a forward shift of the neutral point of approximately 10 percent. Smaller aeroelastic effects were observed for the other wing-fuselage combinations.

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TABLE I.— PRESSURE COEFFICIENTS ON THE FUSELAGE ALONE.

(a) M,O.40.

	interal	<u> </u>			2			attack, deg	rees				
Sta- tion (in.)	dimension (4 Fuselage radius)	Upper	Lover	Upper	Lower	Upper	Lower surface	Upper surface	Lover	Upper surface	Lover surface	Upper surface	Lover
10	8.7 42.3	0.059	-0.007 007	0.046	0.013	0.013	0.007	0.010	0.026 .016	0.016 .013	0.065	-0.023 020	0.070 053
15	70.7	.055 .049 .036	007 013	.039	013	023	026	023 020	007 016	016 016	.019	023	.033
-20	12.3 70.7 8.7	.020	013 013	.016 .016	016 016	020 023	026 026	020 020 023	016	016 013	.016	030 030	.020 .003
	12.3 70.7	.003 013	023 029	010 016	020 020	026 033	030 030	023 026	023 023 023	016 016 023	.016 0 010	036 046 053	.007 0 026
25	8.7 42.3 70.7	007 013 013	029 023 029	016 016 020	006 006 006	030 030 036	030 033 033	026 030 033	023 023* 023	020 020 033	010 013 013	040 046 060	003 023 030
29.50	8.7 42.3 70.7	013 013 016	020 020 029	016 016 020	023 023	033 033	043 043	033 033	023 023 026	020 020	010 010	040 043 056	013 020
31.50	8.7 42.3	013 016	020	020 016	042 042	053 053 043	043 043 043 043	039 033 033	030 030	023 026 026	016 016 016	053 053	030 030
34.50	70.7 8.7 42.3	020 013 013	029 023 020	016 016	026	053 026 033 043	043 030	033 023 026	026 023 023	010 016 016	016 013 013 016	060 033 046	033 023 026
38.00	70.7 8.7 42.3	016 013 020	029 023	020 016 023	036	043 053 053	036	026 023 033	023 033	023 020 023	016	046	030 030
11.50	70.7 8.7 42.3	020 013 016	029 029	023 016 020	023 026		059 056	030 033 030	023 030 030	023 016 016	016 016	046 046 036 036	030 030 030
44.50	70.7	039 	029 070 070	033 	026	===	056 053 053	039 033	030	023	016	046	046
¥7.50	70.7	015 015	039	042	026 033 033	056 056 043 010	053 053 043	033 039 030	026 039	020 020	016 033	C40 +.040 036	030 030 046
10.50	10.1 9.7	039	023 029	.010 03)	026 026	053	053 053	026	026 033	020	016 016 020	003 046	036 036
	42.3 70.7	03) 042 042	033 036	042 040	033 033	059 056 056	059 059	039 033 049	039 039	020 023 026	023 033	036 036 050	046 056
51.50	9./ 47 70./	020	029 023 029	02n 042	033 033 033	05s	056 056 056	030 039	033 033 033	023 023	023 026 033	036 036	030 030 053
·10	4.7 42.1 70.7	079 039 045	035 042 052	033 033 035	035 035 045	056 035	035 035 045	033 033 023	029 029 032	023 023 029	029 036 045	030 030 035	035 045 058
550	9-7 41-3 70-7	042 042 055	079 039 055	042 042 045	029 029 055	035 042 035	029 029 055	029 013 026	013 026 045	029 029 045	036 036 052	029 035 035	032 035 058
ita-	lateral itension (% fuselage	Upper	и Lover	Uprer	10 Lover	Ibras	Angle of 1	ttack, deg	Lover	Upper	16 Lover		18
(in.)	radius)	surface	Surface 6.042	surface -0.023	surface	Upper surface	surface	Upper surface	surface	surface	surface	Upper surface	surface
	42.2 70.7	023 035	.075	013 059	.111	-0.035 055 085	0.151 .108 .036	-0.029 055 094	0,199 .134 .042	-0,049 072 118	0.211 .141 .036	-0.0%2 068 126	0.255 .165 .055
15	F.7 42.3 70.7	039 046 056	.059 .036 .010	052 052 079	.055 .052 .613	056 069 055	.102 .059 .003	049 081 094	.140 .081 .010	049 086 122	.092	052 097 106	.197 .126
20	8.7 · 42.3 70.7	053 056 072	.035 .010 016	052 059 085	.062 .039 016	069 079 109	.069 .036 026	055 081 104	.107 .059 023	049 092 118	.141 .072 026	029 100	.158 .094 019
25	8.7	056 062	.010 007	013 059 065	.045	056 079	.052	039 081	.075	039 105	.266	139 019 106	.142
28.40	70.7 8.7 42.3	082 053	-,020 -,010 -,016	085 052	020 .030 .013	-,095 -,052 -,069	036 .036 .003	091 039 081	039 .075 .036	105 030 115	033 .082 .072	100 029 116	061 .116 .061
:1.40	9.7 42.5	072 053 056	023 007 023	079 045 052	026 .013 011	089	056 036 603	088 039 085	046 .059 .010	099 033 115	062 .076 .013	097 029 106	061 .077 .045
14.50	8.7 1.2.1	072	039 020 023	075 020 052	045 .016 007	089 030 054	056 .030 003	085 023 081	-,055 .042	062 023 095	.076 .013	094 003 100	065 .097 .035
j8.00	8.7 42.3 70.7	053 056 030 046	039	056 020 052	049	069 030 072	062	081 083 088	055	082 026 115	082	094 032 103 084	071
41.50	8.7	062	039 020 023	052 026 046	013 046 .013 013	069 069	-,062	-,062 -,081	055	082 030 105	072	084 032 100	071 094 .026
44.50	42.3 70.7 8.7	046 056	053 053 023	052	052	0%	023 069	-,072	007 072	082	.007 082	094	100
47,50	42.3 70.7 8.7	046 056	- 056	052 052 020	016 059	075 062	023 069	-,088 -,062	007 081	105 082	.007 086	084	.026 094
50.50	12.3 70.7	-,023 -,016 -,053	023 023 060	020 013 052	003 020 059	030 062 036	.003 026 069	039 062	013 081	026 053 082	.013 007 089	029 042 068	.003 091
	8.7 42.3 70.7	030 046 060	059 062	026 052 052	036 069	036 079 069	036 089	033 085 094	023 088	053 095 072	023 105	045 097 077	-,003 -,100
53.50	8.7 42.3 70.7	046 049	023 007 072	052 052	020 036 069	079 06e	013 036 089	062	.010 023 088	082	.016 023 115	094 071	.045 003 100
96.50	8.7 42.3 70.7	030 046 052	045 052 068	020 046 055	036 055 058	036 072 055	029 052 088	029 078 045	.019 029 077	053 086 052	.023 029 094	051 077 070	.035 029 109
	8.7	029	-,029	036		1	013	-,039	.019				
59.50	42.3 70.7	045	055	058	029 055 078	036 062 058	055 088	052 045	029	039 071 061	023 029 084	045 077 073	.035 019 115

TABLE I.- CONTINUED

(b) M,0.60.

Part		Lateral						Angle of a	ttack, deg	rees .				
1.	Sta- tion	dimension (5 fuscings	Unter	Lower	Opper			0		2	Upper	Lower	Upper	Lower
		8.7	0.077	0.010	0.069		0.044	0.035	0.017		_	0.068	-0.018	0.087
10.77	15		.055	.012	.060	.020	.035	010	- 007	011	- 000		<u> </u>	052
10,77		70.7	.027				.012							
1.		42.3 70.7	002	034	0.005	018 029	013	010 018		022	080	002	062	
10, 10			018		002	025 023	025 023	022 023		023 025	045 048		060 065	015 032
10.7		42.3 70.7	050 015	030 035	002 015	-,023		023		032	.040 .040 043			
10.1	31.50	8.7 42.3 70.7	012 020 029	037 039	015 017	022 022	023 035	-,023	042	030 030	042	023 027	059 065	027 042
10.71	34.50	8.7 42.3 70.7	015 022	034 029 032	015	015 015 015	023	022 022 023	~.038	023 025 033		020 022 027		015 022 040
10,77	38.00	8.7 42.3 70.7	012 025 020	034 030	017		023 027 020		040 040 033		037 040 037		052	
1.	¥1.50	42.3	024	032 032 034	012 018 020	020 020	023 027 023	023	033 035 038	035 035 035	032 038 040	023 028 035	045 049 054	049
\$\frac{\partial}{1,00}\$ \$\frac{1}{10}\$ \$\frac{1}{10	14.50	8.7 42,3	029	029	017	018 017	 032 029	023 023 029	040	033	040	023 023 040		025 032 050
1.	47.50	8.7 42.3 70.7	017 .010	029	013 .020 017	017 013 015	022 .012 023	023 023	.035 .002	028 028 033	025 .002 037		032 .002 049	029 032
10	50.50	8.7 \$2.3	034 037	034				030			038 040 040			
26.50 8.7 -0.01 -0.02 -0.03 -0.01 -0.03 -0.03 -0.04 -0.07 -0.05	53.50	8.7	034	02h	018	023		023	038		037		049	032 047
99.50 8.7	56.50	8.7		022 022										
State Color Colo	59.50	8.7 k2.3	037 037		022 023			.017	040 034		027 027	.023 035	042	'.015
No.	Sta- tion	Lateral dimension (\$ fuselage					1	2		14				
\$\frac{4}{10.7}		ļ <u> </u>			,	Lower surface	Upper surface		Upper surface		Upper surface	Lower surface	Upper	Lower surface
10		42.3 70.7	032	0.116 .089 .064		0.139 .106 .060	092 082	0.173 .136 .055	-0.049 069 101	0.034 .149 .035	0.109 015 133	0.237 .168 .206	-0.065 131 166	.186
20	15	12.3 70.7	045 062	.072 .065 .015	057 064 082	.102 .055 .010	- 054 - 064 - 096	.136 .040 .018	052 089 114	.153 .094 .005	064 114 133	.183 .111 .002	065 149 149	.220
5	20	42.3 70.7		018	079 096	020	086 079 107	.087 .069 023	054 092 116	.111 .064 029	062 121 133	.139 .082 040	166	.171 .094 052
88.7	₂₅	70.7	037 06e 073	.102 .002 029	062 081 091	035 .005 029	057 079 .102	055 027 .023	052 097 107	.084 .035 049	062 126 124	.104 .062 062	077 153 146	.136 .060 076
13.50 6.7 -0.09 -0.02 -0.09 -0.07 -0.08 -0.09	28.50	8.7 42.3 70.7	045 049 065	.018 .002 034	049 079 094	.052 .005 049	029 074 086	.055 .020 032	0k9 091 099	-030 l	054 116	-102	~ 070	.128 .052 082
34.00 6.7 002 002 002 002 003 002 003 002 003	31.50	8.7 42.3 70.7	049 049 064	002 015 029	054 065 082	003	07%	.044 .002 049	049 096 089	055		.086 .020 065		.111
19.00 19.7 -0.07 -0.07 -0.09	34.50	42.3	023 049 062	.002 015 040	029 062 071	.013 012 052	023 065 074		~.032					102
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	38.00	8.7 42.3 70.7			045 .065 .065		029 074		+.040				076 149	.086
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	41.50	70.7	037 047		029 057	.002		000			049 116 099		065 141 124	.086
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	44.50	8.7 42.3 70.7			049 065	.002	074	.018		.032		- 052		
9.70 8.71 -0.00 -0	¥7.50	8,7	032	- 013		- 000		018			049 064	.052 005	065 082	.069
33.50 6.7	50.50	8.7	- Olio		029 062 065		045 074 070		049 097	032	065 116			.015
56.50 8.706301802102202202308804900706A000081118 8.3022015041052002002002004003108007005103005113018 70.7015021021021022002002002003004007118007113018 79.70 8.7018011028007040033043033003003005001005001 8.3031031031038007040033043033033030006001 8.3031031051051051001001003002007003003003003003003003003003003003003003003003003003005003 .	53.50				062	015	07		091	.003 032		.094 032	131	.049 015
59.50 8.7018011028 .027040 .023043 .023053 .030066 .033043 .023053 .000066 .033053 .000066 .033	56.50	8.7 N2.3 70.7	023 032	018		022	023 082	008 042	049 094	.007	~.064 ~.104	.030	- 080	118 018
70.7 035 096 047 095 033 092 068 105 080 119 096 136	59.50	8.7 42.3	018 631	-,031	028	.027 040	040 068	.023 -,042	013 077	.023 038	~.053 ~.086	,030 -,033	066	136 .033 027

TABLE I.- CONTINUED

(c) M,0.70.

	interni						Angle of a	tack, dear	ens.				
ita-	:imension (⊈ fuselage	0. per	Lover	U: pr	Lover	Upper	Lover	Upper	Lover	Upper	Lover	Upper	Lover
in.}	radius)	surface	Surface 0.005	Surface 0.046	0.012	Surface 0.031	50000 0.020	0.024	0.046	aurface.	Surface 0.077	-0.005	surface
	k2.3 70.7	0.075 .064 .056	.005	.042 .036	.015	.028	.020 .018	.021	.047	.00k	.067	005	0.092 .078 .059
15	8.7 \$2.3	.037	019 027	.015	015 023	.001 .007	009 012	005 .005	.006 -,001	023 020	.053 .026	031 031	.055
20	70.7 B.7	.022	026	.00Å	015	005	012	+.007	003 016	020	.013	032	-015
zv	42.3 70.7	003 009	033 031	014 023	039 039	023 026 034	035 036 036	030 030 032	019 021	032 040	.007	046 049	016
25	8.7 42.3	005 019	030	023	041 039	035 039	~.039 ~.039	035 039	031 031	057 057	009 013	053 053 058	.005
	70.7	031	046	038	039	039	039	039	032	061 043	027	058 044	030
3.50	8:7 42.3 70 7	009 019 033	037 042 046	027 031 039	041 041 042	038 036 043	039 047	035 036 038	030 031 032	040 044	013 013 030	044 047 057	012 031
1.50	8.7 42.3	019 033 039	- 0\6	- 030	- Ok5	049 049	049 049	046 044	- 032	- Ok6	016 028	050	012
	70.7	039	046 046	039 045	046 046	050	049	046	039 035 032	043 046 030	030 016	053 057 032	032 005
1.50	42.3 70.7	030 033	033 037	036 038	039 039 039	039 039	038 039	035 035	032 034	040	027 030	039 050	019 034
8.00	8.7	- 023	042	036 042	046	043 050	050	043 046	035	- oho	030	039 046 044	031
	42.3 70.7	033 033	038	036	039	039	039	032	032	040	030	036	032
1.50	8.7 42.3	022 031 035	034 037 042	036 039	041 042 042	039 043 047	047 049 047	039 039	032 039 039	032 032 042	031 034	039 044	032 039
4.50	8.7	·	-,033	039	041		- 043	039 044	034	040	027	039	019 031
	\$2.3 70.7	034 039	033 045	045 042	039 046	050 050	040 050	044 032	034 044 034	040	030 043 027	049	053 018
7.50	8.7 42.3	026 .004 034	033 033	036 001 039	039 038 039	039 007 039	039 038 039	.001 035	034 034	030 .004 032	030 032	032 .001 043	031 040
0.50	70-7	- 020	033	- Ohó	046	051 051	051	046 046	046	036 040	042	032 044	044
	42.3 70.7	046 047	039 046	050 053	050	053	051	047	047	043	050	÷.047	→.057
3.50	8.7 42.3	033	033 033	046 046	042 042 043	050 049	049 047 047	039 040	039 039 044	031 036	030 036 039	034 043	032 035 055
6.50	70.7 8.7	046	039 037	050	046		AEE.	- 016	046 046	- 032	043 046 055	- 032	- 043
	42.3 70.7	047 049	037 046	053 046	046 053	051 053 054	055 055	046 043	046	034 040		034 042	054 066
9.50	8.7 42.3	049 049	.005 037 028	069 054 061	001 043 049	055 055 061	0 053 05 5	046 046	.009 -,044 -,046	040 039 043	.011 043 056	039 042 045	.003 054 069
	70.7	062				-							
	,							ttack, dea	rees				
cta-	Lateral discussion (% fuse lage	Upper	Lover	1 Upper	0 Lover	Upper	2 Lover	ttack, deg	Lover	Upper	Lower	Upper	5 Lover
(in.)	Lateral dimension (% fuselage radius)	Upper surface	Lower surface	Upper surface	0 Lover surface	Upper	2 Lower surface	ttack, deg Upper surface	Lover surface	surface	surface 0.2h7	Upper surface -0.037	Loves
tion	Lateral discussion (% fuse lage	Upper surface -0.013 013	Lover	Upper surface -0.036 047 064	0 Lover	Upper	2 Lover	ttack, deg	Lover surface -0.206 152 054	-0.050 088 120	0.247 .179 .058	Upper surface -0.037 120 019	0.28 .201
(in.)	Lateral discussion (% fuscisser radius) 8.7 22.3 70.7 8.7	Upper surface -0.013013027035	Lower surface 0.122 .106 .063	Upper surface -0.036 047 064 053 064	0 Lower surface 0.015016058099	Upper surface -0.034 051 075 052 070	Lower surface 0.176 .136 .063 .129 .086	Upper surface -0.05k 07k 115 090	Lover eurface -0.206 152 054 .155 .094	-0.050 088 120 061 104	0.247 .179 .058 .193 .123	Upper surface -0.037 120 019	0.28 .20 .04 .23
tion (in.) 10	Lateral discration (% fuscing radius) 8.7 42.3 70.7 8.7 42.3 70.7	Upper surface -0.013 027 035 042 040	Lower surface 0.122 .106 .063	Upper surface -0.036 047 064 053	0 Lover surface 0.015016098099065018	Upper surface -0.034 051 075 075 079 069	Lover surface 0.176 .136 .063 .129 .086 .019	Upper surface -0.05% -0.07% -115 -0.90 -0.060	Lover eurface -0.206 152 054 .155 .094 .007	-0.050 -0.088 -120 -061 -104 -130 -062	0.247 .179 .058 .193 .123 .007	Upper eurface -0.037 120 019 066 147 149	1.0ver surface 0.20 .201 .04 .231 .139 001
(in.)	Lateral discration (\$ footbase 100	Upper surface -0.013 027 035 042 040	Lover surface 0.122 .106 .063 .061 .054	Upper eurface -0.036 047 064 053 064 084	0 Lower surface 0.015016058099	Upper surface -0.034 051 075 076 079 069	Lower surface 0.176 .136 .063 .129 .086	Upper surface -0.05% 07% 115 090 098 108 061 101	Lover eurface -0.206 152 05k .155 .094 .007	-0.050 088 120 061 130 062 115 128	0.247 .179 .058 .193 .123 .007 .146 .085 030	Upper surface -0.037 120 019 066 1k7 1k9 066 1k7 1k7	1.0ves surfac 0.20 .201 .04 .231 .133 001 .19 .099
tion (in.) 10	Lateral discration (% Fuscinger medius) 6.7	Upper surface -0.013 027 035 042 048 054 056	Lover surface 0.122 .106 .063 .081 .026 .026 .026 .026 .026 .026 .026 .026	Upper eurface -0.036 047 064 053 064 084 061 074 077	0 Lover surface 0.015016059065018065011020038	Upper surface -0.034 051 075 076 079 069	2 Lover surface 0.176 .136 .063 .129 .086 .019 .089 .051 .009	Upper surface -0.05% -0.07% -1.15090098108061101121	Lover surface -0.206152054 .155 .094 .007 .115 .061031	-0.050 -0.088 -1.20 -0.61 -1.104 -1.30 -0.62 -1.15 -1.28 -0.57 -1.17	0.247 .179 .058 .193 .123 .007 .146 .085 030	Upper surface -0.037 120 019 066 147 149 066 147 147 069 147	1.0ve: surface 0.20 .20 .0k: .23 .13 00 .19 .09
15 20 25	Lateral discussion (% Fose lage residue) 8.7 \$2.3 \$70.7 \$8.7 \$2.3 \$70.7 \$8.7 \$2.3 \$70.7 \$8.7 \$2.3 \$70.7 \$9.7 \$9.7 \$9.7 \$9.7 \$9.7 \$9.7 \$9.7 \$9	Upper surface -0.013 -0.013 -0.02 -0.04 -0.04 -0.04 -0.04 -0.04 -0.04 -0.05 -0.04	Lover surface 0.122	Upper eurface -0.036 047 064 053 064 061 074 077 077	0 Lover surface 0.015016078	Upper surface -0.034051052059069066072099048072	2 Lower surface 0.176 .136 .063 .129 .086 .019 .091016 .062 .024 .024 .034	Upper surface -0.07h -117 -0.090 -0.091 -1.001 -1.001 -0.061 -1.011 -1.011 -1.011	Lover eurface -0.206 -152 -054 -155 -094 -007 -115 -031 -031 -070	-0.050 -0.080 -0.080 -1.20 -0.061 -1.104 -1.30 -0.062 -1.115 -1.28 -0.57 -1.117	0.247 .179 .058 .193 .007 .146 .005 030 .112 .058 050	Upper surface -0.037 -120 019 056 147 149 066 147 147 059 147 149	1.09es surface 0.20f .201 .201 .201 .201 .201 .201 .201 .201
10 10 15	Lateral discration (% fuse lage residue) (% fuse lage residue) (% fuse lage residue) (% fuse lage residue) (% fuse lage lage lage lage lage lage lage lag	Upper surface -0.013 -0.02 -0.04 -0.04 -0.04 -0.04 -0.02 -0.04 -0.02 -0.02 -0.02 -0.02 -0.02 -0.02 -0.04 -0.02 -0.04 -0.02 -0.04 -0.02 -0.04 -0.02 -0.04 -0.02 -0.04 -0.02 -0.04 -0.04 -0.02 -0.04 -0.	Lover surface 0.122 .106 .063 .061 .026 .026 .026 .026 .026	Upper surface -0.036 087 064 053 064 074 071 077 078 079	0 Lover surface 0.015016078	Upper surface -0.034051075075089069072099048	Lover surface 0.176 .136 .063 .129 .086 .019 .099 .091 -016	Upper surface -0.054105098108061121061121061161161161	Lover surface -0.206 -0.152 -0.054 -155 -0.054 -0.07 -0.115 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.058	-0.050 -0.88 -1.20 -0.61 -1.04 -1.30 -0.62 -1.15 -1.26 -0.57 -1.17 -1.17 -0.50 -1.11	0.247 .179 .058 .193 .123 .007 .146 .085 030 .112 .058 050	Upper surface -0.037 -120019066147149066147147069147145066145145	10ves surface 0.201 .201 .233 .133 000 .199 .099 .066 066
15 20 25	Lateral discration (% Fuse lage residue) 8.7	Upper surface -0.013 -0.03 -0.027 -0.042 -0.04 -0.04 -0.04 -0.05 -0.04 -0.05 -0.04 -0.05 -0.04 -0.05 -0.04 -0.05 -0.04 -0.05 -0.04 -0.05	Lover surface 0,122 106 .063 .063 .026 .026 .025 .026 .027 .027 .026 .027 .027 .027 .028 .028 .028 .028 .028 .028 .028 .028	Upper surface -0.036057064053064061074077057078078078078078	0 Lover surface 0.015 -016 .059 .095 .018 .065 .007 -038 .007 -032 .004 -032 .004 -043 .004	Upper surface -0.034 -0.051 -0.075 -0.056 -0.072 -0.08 -0.073 -0.08 -0.073 -0.061 -0.073 -0.061 -0.073 -0.061 -0.073 -0.061 -0.073	2 Lover surface 0.176 .136 .063 .129 .086 .019 .089 .051 .062 .024 .034 .055 .021 .041	Upper eurrace -0.054 -0.074 -115 -0.98 -108 -101 -101 -121 -0.01 -101 -115 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00	Lover surface -0.206 -1.152 -0.94 -0.94 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.00 -0.00 -0.00 -0.00	-0.050 -0.088 -1.20 -0.061 -1.104 -1.130 -0.052 -1.15 -1.128 -0.57 -1.117 -1.117 -0.50 -1.111 -0.5111 -1.111	0.247 179 .058 .193 .007 .146 .005 030 .112 .058 050 .098 050 .094 074	Upper surface -0.037 -120 -0.197 -129 -0.66 -127 -129 -0.66 -127 -129 -0.66 -127 -129 -0.66 -127 -129 -0.66 -129 -129 -0.66 -129 -129 -0.66 -129 -129 -0.66 -129 -0.66 -129 -0.66 -0	10ves surface 0.20° .201 .04° .23: .133001 .199 04c .066 066 066 07
tion (in.) 10 15 25 28.50	Lateral discussion (% Fuse lage residue) (%	Upper surface -0.013 -0.013 -0.015 -0.014 -0.05 -0.04 -0.05 -0.04 -0.05 -0.06 -0.06 -0.06 -0.06 -0.06 -0.05	Lover surface 0.122 .106 .063 .061 .024 .025 .005 .009 .009 .009 .000 .000 .001 .001 .001	Upper surface -0.036 -0.07 -0.07 -0.08 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09	0 Lower surface 0.015 -016 -058 -055 -018 -007 -035 -008 -008 -008 -008 -008 -008 -009 -008 -009 -009	Upper surface -0.034051075079086072097048071071071046072	2 Lover surface 0.176 .136 .663 .129 .086 .019 .091 .095 .092 .093 .092 .093 .093 .093 .093 .093 .093 .093 .093	Upper eurrace -0.0% -0.0% -0.0% -0.09 -0.98 -0.061 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.00 -0.00 -0.00 -0.00	Lover eurisce -0.206 -1.206 -1.207 -0.54 -0.59 -0.007 -0.01 -0.01 -0.01 -0.01 -0.03 -0.03 -0.03 -0.03	eurface -0.050088120061130057117117050111057111	0.247 .179 .058 .193 .123 .007 .146 .085 030 .112 .058 050	Upper surface -0.037120019066119066117117069117065117069117115066117115066117115066117115066117115076117115076117115	10ver surface 0.200 / 201 / 20
tion (in.) 10 15 25 28.50	Lateral discration (% Fuse lage residue) 8.7	Upper surface -0.013 -0.015 -0.015 -0.016 -0	Lover surface 0.122 .106 .063 .061 .021 .025 .025 .025 .026 .027 .026 .027 .027 .028 .029 .029 .029 .020 .020 .021 .021 .021 .021 .022 .022	Upper surface	0 Lover surface 0.015016016018003018004018009018008018008018008018008018008018008018008018008018008018008	Upper surface -0.034 -0.075 -0.075 -0.075 -0.076	2 Lover surface 0.176 .136 .063 .129 .086 .019 .099 .091 .062 .024 .033 .021 .030 .031 .031 .031 .031 .031 .031 .03	Upper eurrace -0.0% -0.0% -0.0% -0.09 -0.98 -0.061 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.00 -0.00 -0.00 -0.00	Lover surface -0.2661520540540540510510510530560580580580570710580590570710570	-0.050 -0.088 -1.20 -0.061 -1.104 -1.130 -0.052 -1.15 -1.128 -0.57 -1.117 -1.117 -0.50 -1.111 -0.5111 -1.111	0.2k7 .179 .058 .193 .123 .007 .1k6 .005 030 .112 .056 050 .058 050	Upper surface -0.037120019056 -147149066147069145065145065147145156176176176176174134	10000 0.200 .201 .202 .203
tion (in.) 10 15 20 28.50 31.50	Lateral discration (% Fuse lage residue) 8.7	E Upper surface -0.013 -0.013 -0.013 -0.014	Lover surface 0.12c 0.12c 0.05 0.061 0.05 0.061 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0	Upper surface (1975) (1	Lover surface 0.015 0.015 0.015 0.02	Upper surface -0.091 -0.092 -0.092 -0.092 -0.092 -0.092 -0.092 -0.092 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093 -0.093	2 Lover surface 0.176 1.356 .063 1.129 .086 .091 .091 .091 .093 .091 .002 .004 .005 .002 .004 .005 .005 .005 .006 .006 .006 .006 .006	Upper surface -0.054 -0.074 -1.115 -0.050 -1.016 -1.015 -0.050 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -1.016 -0.050 -1.016 -1.016 -0.050 -1.016 -0	Lover surface -0.206 -1.152 -0.94 -0.94 -0.07 -0.153 -0.07 -0.15 -0.07 -0.07 -0.08 -0.07 -0.08 -0.07 -0.09 -0.07 -0.09 -0.07 -0.09 -0.07		8urface 0.247 179 0.98 193 123 123 124 0.055 -0.30 1112 0.98 0.044 -0.74 0.09 0.009 -0.070 0.078	Upper surrect of the control of the	10000000000000000000000000000000000000
tion (in.) 10 15 20 28.50 31.50 38.50	Lateral discration (% Fuse lage resistant) (% Fuse lage resistant) 8.7 82.3 70.7 8.7 82.3 70.7 8.7 82.3 70.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8	Comparation	Lover surface 0.12c 0.12c 0.12c 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0	Upper surface (10 cm	Lover surface confidence	Upper surface	2 Lover surface 0.176 (.136 0.053 0.053 0.053 0.054 0.059 0.054 0.054 0.054 0.055 0.054 0.055 0.	Upper surface -0.054 -0.074 -0.074 -115 -0.09 -1061 -101 -101 -101 -101 -101 -0.05 -102 -0.05 -0	Lover currace -0.206 -1.152 -0.054 -0.051 -0	-0.090 -0	8urface 0.2k7. 1179 -0.58 193 123 .007 .146 -0.59 -0.59 -0.59 -0.59 -0.59 -0.59 -0.59 -0.68 -0.78 -0.78 -0.78 -0.78	Upper surface of the control of the	10000000000000000000000000000000000000
tion (in.) 10 15 20 28.50 31.50 38.50	tarent) tarenton (\$ fuering reduce) 8.7 to-7 to-7 to-7 to-7 to-7 to-7 to-7 to-	Upper auritage 4 - 0.013 - 0.02 - 0.0	Lover surface 0.12c 0.12c 0.12c 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0	Upper surface of the control of the	O Lover surface of the control of th	Upper europe -0.034 -0.052 -0.072 -0.	2 Lover eurace 0.176 cm 1.33 c	Upper surface -0.054 -0.054 -0.056 -0	Lover surface -0.206 -1.152 -0.94 -0.94 -0.07 -0.153 -0.07 -0.15 -0.07 -0.07 -0.08 -0.07 -0.08 -0.07 -0.09 -0.07 -0.09 -0.07 -0.09 -0.07		8urface 0.28\7 .179 .058 .193 .123 .007 .116 .095 .095 .095 .095 .096 .096 .096 .096 .096 .097 .096 .097 .097 .097 .097 .097	Upper surface of the control of the	10000000000000000000000000000000000000
25 28.50 331.50 38.00	Lateral discration (5 miles) (5 miles) (7 miles) (7 miles) (8 mile	Uprace U	Lower Burface 0.122 0.126 0.063 0.061 0.064 0.065 0.	Upper eurrace -0.036 -0.067 -0.067 -0.067 -0.067 -0.061 -0.061 -0.074 -0.074 -0.078 -0.080 -0.081 -0	Lower surface O.015 O.015 O.015 O.015 O.015 O.015 O.016 O.01	Upper surface -0.034 -0.034 -0.052 -0.052 -0.072 -0	2 Lever eurface 0.176 (.136 (.159 (.	Upper europe of the control of the c	Lover surface -0.206 -0.192 -0.192 -0.013 -0.014 -0.014 -0.014 -0.015 -0.015 -0.016 -0	-0.079 -0.080 -1.090 -0.081 -1.090 -0.081 -1.090 -0.091 -1.090 -1.190 -1.191 -1.090 -1.111 -0.097 -1.104 -0.091 -1.106 -1.106 -1.106 -1.106 -1.106 -1.106 -1.106 -1.106 -1.106 -1.106 -1.106 -1.106 -1.106 -1.106 -1.106 -1.106	8urface 0.247, 179 0.258, 193 1293 1293 1293 1293 1293 1293 1293 1	Upper eurrace	1.000000000000000000000000000000000000
tion (in.) 10 15 25 28.50 31.50 34.50 41.50	Lateral discration (5 miles) (5 miles) (7 miles) (7 miles) (8 mile	Upper auritace	Lover surface 0.12c 0.12c 0.12c 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0	Upper surface of the control of the	O Lover surface of the control of th	Upper surface -0.034 -0.034 -0.051 -0.052 -0	2 Lower surface 0.176 (0.196) 0.196) 0.663 (1.196) 0.663 (0.196) 0.664 (0.196) 0.664 (0.196) 0.664 (0.196) 0.664 (0.196) 0.664 (0.196) 0.664 (0.196) 0.664 (0.196) 0.664 (0.196) 0.664 (0.196) 0.664 (0.196) 0.664 (0.196) 0.665 (0.196	Upper eurrace -0.074 -1074 -1074 -1074 -1075 -0061 -1061 -1061 -1075 -1074 -1075 -10	Lower surface -0.206 -0.206 -0.201 -0.007 -0.007 -0.00	- 0.070 - 0.080 - 1.20 - 0.081 - 1.20 - 0.061 - 1.30 - 0.062 - 1.15 - 1.26 - 0.07 - 1.17 - 1.17 - 0.07 - 1.104 - 0.06 - 1	surface 0.247 0.247 179 193 193 193 193 193 107 116 008 -090 008 -090 008 -070 008 -070 008 -070 008 -070 008 -070 008 -070 008 -070 008 -070 008 -070 008 -070 008 -070 008 -070 008 -070 008 -070 008 -070 008 -070 008	Upper surface -0.037 -1.00 -0.019 -0.056 -1.147 -1.269 -0.066 -1.147 -1.267 -0.066 -1.147 -1.267 -0.066 -1.141 -1.26 -0.161 -0.066 -1.161 -0.066 -1.161 -0.066 -1.161 -0.066 -0.0	1.00en 1
25 28.50 31.50 38.00 41.50	Lateral discretion (% fluered property) (% fluered	Upper auritace	Lower Lowe	Opport	0 Lower surface 0 0.015 -0.015	Upper surface -0.034 -0.034 -0.034 -0.032 -	2 Lover surface 0.176 cm for 136	Upper eurrace	Lorent surface	-0.070 -1.104 -0.091 -0.088 -1.20 -0.061 -1.006 -1.107 -1.117 -1.117 -0.077 -1.117 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.110 -0.077 -1.110 -0.077 -1.110 -0.077 -1.110 -0.077 -1.110 -0.077 -0.	surface 0.247 0.247 179 193 193 193 193 193 107 116 106 107 108 109 109 109 109 109 109 109 109 109 109	Upper surface -0.037 -1.05 -1.09 -1.09 -0.066 -1.147 -1.147 -1.147 -1.147 -1.147 -1.147 -1.141 -1.161 -1.161 -1.161 -1.161 -1.161 -1.161 -1.161 -1.161 -1.161 -1.161 -1.161 -1.161 -1.161 -1.166 -1.161 -1.16	1.00e.00
tion (in.) 10 15 20 28:50 28:50 31:50 38:50 41:50	Lateral discretion (% acts) (%	Upper Auritage Color C	Lower surface 0.122 0.126 0.601 0.601 0.601 0.602 0.605 0.60	Open	0 Lower Surface 0.015 -0.015 -0.015 -0.015 -0.015 -0.015 -0.018 -0.015 -0.0015 -0.0	Upper surface -0.034 -0.052 -	2 Lover surface 0.176 cm for 136	Upper e- eurface 0.054 - 0.074 - 0.174 - 0.195 - 0.98 - 0.061 - 1.001 - 1.01 - 1.01 - 1.01 - 1.01 - 1.02 - 0.05	Lorent surface	-0.070 -0.087 -120 -0.088 -120 -0.061 -130 -0.062 -1117 -1117 -0.07 -1117 -0.07 -1111 -0.07 -1104 -0.047 -1106 -106 -106 -107 -1111 -0.07 -1111 -0.07 -1111 -0.07 -1111 -0.07 -1111 -0.07 -1111 -0.07 -1111 -0.07 -1104 -0.047 -1105 -0.047 -1106 -0.047 -1106 -0.047	aurface 0.2k7 0.2k7 179 0.058 193 123 1007 1146 0.059 1123 0.078 0.058 0.078 0.078 0.079	Upper surface -0.037 -1.100 -0.037 -1.100 -0.037 -1.100 -0.030 -1.100 -0.030 -1.100 -0.030 -0.030 -1.100 -0.030 -0	1.000000000000000000000000000000000000
tion (in.) 10 15 20 28.50 31.50	Lateral decreases of the control of	Upper aurical	Lower Lowe	Open	0 Lower Surface 0.015 -0.05 -0	Upper surface -0.034 -0.034 -0.034 -0.032 -	2 Lover surface 0.176 cm for 136	Upper eurrace	Lorent surface	-0.070 -1.104 -0.091 -0.088 -1.20 -0.061 -1.006 -1.107 -1.117 -1.117 -0.077 -1.117 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.117 -0.077 -1.110 -0.077 -1.110 -0.077 -1.110 -0.077 -1.110 -0.077 -1.110 -0.077 -0.	aurface 0.2k7 0.2k7 179 .058 .193 .123 .007 .116 .069 .059 .058 .058 .058 .058 .058 .058 .058 .058	Upper surface -0.037 -1.100 -0.019 -1.101 -1	1.000000000000000000000000000000000000
25 25 25 25 25 25 25 25 25 25 25 25 25 2	Lateral discussion (% Four-layer medius) 6.7 3 40.7 3 40.7 7 40.3 70.7 8.7 42.3 70.7 8.7 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 8.7 42.3 70.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8	Upper Auritage Color C	Lower Lowe	Open	0 Lower Surface 0.015 -0015 -0015 -0015 -0016 -0015 -0016 -0015 -0016 -0	Upper surface	2 Lover surface 0.176 cm for 136	Upper entre of the control of the co	Lower Surface Congress Co		aurices 0.247 177 178 193 193 193 193 193 193 193 193 193 193	Upper surface -0.937 -1.109 -1.104 -1.104 -1.104 -1.104 -1.105 -1	Lorenze Lore
10 15 20 25 268.50 31.50 31.50 31.50 41.50 50.50	Lateral discussion (% Fose lager reading) (%	Upper aurices	Lower surface 0.122026026027027027027027027027027027028029	Open	0 Lower Surface 0.015 -0015 -0015 -0015 -0016 -0	Upper surface -0.034 -0.034 -0.031 -0.072 -0.095 -0.096 -0.096 -0.097 -0.086 -0.072 -0.097 -0.086 -0.072 -0.097 -0.086 -0.072 -0.097 -0.086 -0.072 -0.097 -0.086 -0.072 -0.097 -0.086 -0.098	2 Lower surface 0.176 0.196 0.099 0.009 0.001 0.	Upper eurrace	Lower Surface Congress Co		surface 0.247 177 179 193 1293 1293 1203 1106 2090 1102 1008 10090 1008 10090	Upper surface surface -0.037 -120 -120 -120 -120 -120 -120 -120 -120	Jones of the control
10 15 20 25 268.50 31.50 31.50 31.50 41.50 50.50	Lateral discussion (% Fose lager reaction) (% Fose lag	-0.03 -0.03 -0.03 -0.03 -0.03 -0.07 -0.04 -0.04 -0.05 -0.04 -0.05 -0.06	Lower surface 0.126 .006 .006 .006 .006 .006 .006 .006 .0	Upper Uppe	0 Lower surface 0.015 -0.016 -0.017 -0.016 -0.017 -0.017 -0.016 -0.017 -0.016 -0.017 -0.017 -0.016 -0.017 -	Upper surface -0.034 -0.034 -0.072 -0	2 Lower surface of the control of th	Upper eurrace	Lover surface		aurices 0.247 177 178 193 193 193 193 193 193 193 193 193 193	Upper surface -0.937 -1.109 -1.104 -1.104 -1.104 -1.104 -1.105 -1	1.0ves eurface
10 (in.) 10 15 20 20 20 20 20 20 20 20 20 20 20 20 20	Lateral discration (f. end. use) (f. end. us	Upper aurices	Lower surface 0.122026026027027027027027027027027027028029	Open	0 Lower Surface 0.015 -0015 -0015 -0015 -0016 -0	Upper surface -0.034 -0.034 -0.031 -0.072 -0.095 -0.096 -0.096 -0.097 -0.086 -0.072 -0.097 -0.086 -0.072 -0.097 -0.086 -0.072 -0.097 -0.086 -0.072 -0.097 -0.086 -0.072 -0.097 -0.086 -0.098	2 Lower surface 0.176 0.196 0.099 0.009 0.001 0.	Upper eurrace	Lower Surface Congress Co	surface -0.090 -0.086 -120 -0.010 -0.087 -120 -0.010 -100 -100 -100 -100 -100 -0.007 -1117	aurices 0.247 0.247 0.297 0.298 193 123 120 116 0.609 0.604 0.609 0.604 0.607	Upper surface surface -0.037 -1.100 -0.050 -1.111 -1.101 -1.101 -1.101 -1.101 -1.101 -1.101 -1.101 -1.101 -1.101 -1.101 -1.105 -1.101 -	Lorenze Lore

TABLE I.- CONTINUED

(d) M,0.75.

	[atera]						Angle of	aftack, de	E++1				
Sta- tion (in.)	interni dimension (f fuselage		4	 	-e T	1	<u> </u>		2	 	*		6
	radius)	Upper surface	Lover surface	Upper surface	Lower surface	Surface	Lower	Oyper surface	Lower surface	Upper surface	Lover surface	Upper aurface	Lover surface
10	8.7 \$2.3 70.7	0.096 .051 .041	-0.014 014 011	0.056 .050 .043	0.007 -007 -007	0.038 .036 .033	0.037 .037 .029	0.009 .009 .012	0.040 .040 .030	0.002 .009	0.070 .058 .046	-0.009 002 005	0.100 .087 .059
15	8.7 42.3 70.7	.022 .014 .001	036 043 042	.022 .017 .009	020 027 024	.005 .004 .002	.005 002 0	021 020 019	00A 0 006	026 026 022	.035 .011 .009	023 030 033	.060 .052 .017
20	8.7 42.3 70.7	009 019 033	045 058 060	005 015 020	040 041 042	020 021 023	021 021 023	035 037 041	022 025 032	041 040 042	011 010 020	-,044 -,047 -,049	.026 .01 012
25	8.7 k2.3 70.7	027 035 047	061 060 065	019 028 036	048 048 052	028 032 034	033 032 034	047 050 050	035 035 041	051 051 053	016 022 028	047 048 059	.004 009 023
28.50	8.7 42.3 70.7	032 035 052	058 058 065	028 030 040	0kg 0k3 051	032 032 036	033 033 034	037 050 056	035 035 045	052 051 053	019 026 038	047 047 052	.001 010 030
31.50	8.7 k2.3 70.7	043 046 058	058 061 065	036 040 045	045 048 052	- 039 - 039 - 045	037 041 037	057 056 060	046 047 047	053 052 05k	026 037 041	048 048 058	021 036
34.50	6.7 42.3 70.7	031 043 048	058 058 060	020 032 036	054 054 045	022 033 022	033 033 033	037 046 047	041 041 045	035 043 051	027 028 038	033 042 048	007 017 030
38.00	8.7 42.3 70.7	043 055 052	058 058	036 045 036	048	023 032 033	037 034	050 057 017	047 045	051 052 044	-,038 -,038	036 046 047	023 033
41.50	8.7 42.3 70.7	045 047 058	058 058 058	036 040 045	-,045 -,048 -,048	034 036 037	03A 037 036	018 050 053	039 047 047	043 046 051	028 038 044	036 036 048	017 027 042
11.50	8.7 42.3 70.7	056 058	056 056 065	045 048	0A2 042 048	0\1 0\1	036 034 041	- 053 - 053	047 047 053	051 051	032 038 051	-, 042 -, 048	021 023 046
A7.50	8.7 42.3 70.7	046 011 058	052 055 057	,032 ,002 ,042	040 040 042	033 .004 034	034 034 034	046 009 047	045 047 047	- 040 - 001 - 043	031 038 043	027 .002 042	017 023 045
50.50	8.7 \$2.3 70.7	058 061 071	058 065	052 052 054	048 043	047 045 047	045 047	060 058 060	060 060	051 047 053	052	039 042 048	-,046 -,050
53.50	8.7 42.3 70.7	057 061	056 057 058	045 048	042 045 048	039 041	041 041 041	048 053	050 053 050	042 051	028 049 052	03h 042	030 036 047
56.50	8.7 42.3 70.7	-,065 -,068 -,061	050 050 058	053 054 047	047 045 045	047 047 040	047 047 047	050 050 045	055 055 055	044 047 038	042 042 050	03k 037 037	030 047 058
59.50	8.7 42.3 70.7	051 062 069	019 048 058	047 047 059	011 037 045	047 046 047	010 042 047	052 047 054	017 054 055	048 049 042	011 043 050	033 034 039	007 046 048
Sta- tion	interni dimension (\$ fuselage		8		.0_		Angle of	attack, de	roes 14		16		
(in.)	radius)	Upper surface	Lover	Upper surface	Lover	Upper surface	Lover surface	Upper surface	Lover	Upper surface	Lower eurface	Upper	Lower surface
10	8.7 42.3 70.7	-0.021 023 033	0.123 .112 060	-0.031 038 053	0.147 .118 .059	-0.034 047 073	0.175 .138 .069	-0.039 062 092	0.209 .160 .064	-0.039 076 113	0,259 .193 .068	-0.0% 110 143	0.273 -317 -050
15	8.7 42.3 70.7	043 048 051	.076 .051 .015	052 059 075	.101 .071 .017	- 052 - 069 - 089	.129 .084 .018	048 080 105	.160 .101 .018	049 099 121	.200 .135 .018	065 134 143	.217 .133 .007
50	8.7 \$2.3 70.7	-,049 -,060 -,073	.039 .025 015	05A 067 077	.064 .046 016	055 076 098	.086 .049 015	052 086 111	.112 .068 018	049 108	.158 .097 022	068 140 140	.167
25	8.7 42.3 70.7	051 060 073	.015 0 025	053 069 075	.047 .009 035	050 076 096	.059 .025 034	049 089 105	.080 .038 039	117 086 110	.123	664 140	039 .131 .067
28.50	8.7 \$2.3 70.7	049 055 072	.012 006 035	052 068 072	.042 .005 040	048 074 089	.049 .014 028	0A7 086 096	.074 .031 049	031 105 105	031 .111 .055	138 060 138	-,060 .121 .055 -,069
31.50	8.7 42.3 70.7	055 055	0 018 041	053 066 082	.015 014 051	049 074 086	.037 0 052	049 028	.055 .012	-,049 -,111 -,101	050 .096 .037 062	131 069 134 128	069 .106 .033 080
34.50	8.7 \$2.3 70.7	037 048 062	0 012 041	041 056 068	.015 010 051	03k 06k 074	.034 0 052	091 080 084	055 .052 .012	101 034 105 090	062 .087 .037 065	128 054 133 116	080 .100 .031 076
38.00	8.7 12.3 70.7	038 052 052	012 013	-,040 -,063 -,063	016 052	037 074 068	032 012 055	037 090 074	059 002 064	-,090 -,043 -,112 -,085	.025	064 145	
¥1.50	8.7 42.3 70.7	037 047 059	011 025 048	035 057 063	002 026 05h	068 068	.018 014. 064	074 086 076	.038 .002	~039	071 .071 .014	110 064 138 116	041 .080 .007 101
11.50	8.7 42.3 70.7	048	012 025 051	056 063	00A 026 066	071 071 071	012 015 071	076 090 074	071 .031 076 076	-075 111 086	076 .062 .012 086		.069
17.50	8.7 42.3 70.7	031 005 049	012 031 053	028 015 054	00A 028 066	025 025 064	.012 022 071	018 037 071	.037	086 038 049 060	086 .067 .009 087	060 073 103	106 .069 .005
50.50	8.7 42.3 70.7	037 049 052	048 111	038 063 063	041 084	037 076	071 037 086	071 043 095 074	076	076 107 086	006	-, 103 -, 076 -, 131 -, 110	
53.50	8.7 42.3 70.7	052 064 049	111 025 043 065	053	016 041	068	086 002 037 084	-,086	089 025	086 096 074	100 .043 011		015 128 .044 017
56.50	8.7 42.3 70.7	033 047 047	069 041 048 072	053 055 064 .060	075 036 058 086	062 037 075 050	064 014 047 087	058 086 059	086 .001 034	055	-,099 -,026 -,022	118 097 076 118 087	122
	1 70.7					- 050	- 092	- 050	096			120	027 I
59.50	70.7 8.7 \$2.3 70.7	017 014 018	007 048 072	045 067 061	012 09	037 074	004 043	035 076	.002	071 049 035	109 .022 025	067 071 103	126 .032 026

TABLE I .- CONTINUED

(e) M,0.80.

Secondary Seco		Lateral							f sttack, d	ogrees			,	
1.	Sta- tion	dimension							Unper 2	Lover	Upper 1	lover		
1.		8.7	0.063	0.006	0.047	aurface	0.027	0.027	0.014	nurface 0.037	n nna	0.050	-0.009	0.082
Property Property	15	8.7	.029	.006	.036	022	.027	.018	-,019		030			.039
	20	70.7	.007	025	.002	032 n\s	- 027	016	019 011	009	030 0k9	003	042	.006
Print		42.3 70.7	024	050	033		035	041	043			032		030
1.50		70.7	030 039	050 053	042 045	056 056	047	053	055		061	052 043	069	04;
1. 1. 1. 1. 1. 1. 1. 1.		42.3 70.7	030 041	054	050		041 050	047 053	000	0\1 05}	057 054	016	0%	032
Fig. -0.5 -0.5	31.50	8-7 . 42-3 70-7	0A0 053	051 053	058	058 058	053 055	053	057 064	055 055	063 06	054	07/-	051
Total Tota	34.50	8.7 12.3 70.7	027 032 ·043	0k3 0k3 053	033 044 047	054 054 068	039 043 047	049 049 053	~.053 ~.051	043 055	055	038 042 055	054 061	037
1.10	38.00	1 42.3	039 047 043	 050 050	0%	056 056	l056 l	053 053	055 061 053	 055 053	056 055	046 053	057 061 057	045
1. 1. 1. 1. 1. 1. 1. 1.	41.50	8.7	039 041	043 047	ONS		047 050	051 053	053 054	053 054 054	055	043 049 015	053 054 064	0}L 043
1. 1. 1. 1. 1. 1. 1. 1.	44.50	8.7 42.3	049	043 043	056		053	051 051	055	053 053		04; 043		0 ₅ 8 044
19.50	47.50	8.7	035	041 041	045 010		- 0h7	- 010	049 013	046 046	047 011	042	046 015	032
33.00 63.7	50.50	70.7 8.7 42.3				058	058 058	058	~.064 ~.061	061	056 056	057	055 057	
Second S	53.50	70.7 B.7		055 041 050			- 000		055				055	-,046 -,055
197.07	56.50	8.7	058			057 054 060			- 64			054 057 061		065
Tarry Tarr	59.50	70.7 B.7			~.051	054		OA3	043	046			050	078
Control Cont		42.3 70.7	066	-,044	06	049	061	054	057	055	057	066	066	078
Control Cont														
10		lateral						Angle of	f attack, de	ogroes				
15		dimension	Upper	Lover	Upper	Lover		5						
20	tion (in.)	dimension (% fusclage radius) 8.7 \$2.3	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface 0.178	Upper surface	Lower eurface 0.211 .156 .059	Upper surface -0.063 099 136	lover surface 0.238	Upper surface	Lover surface 0.280 .706 .058
S	(in.)	dimension (\$ fuselage radius) 8.7 \$2.3 70.7 8.7 \$2.3	Upper surface -0.021 024 030	Lover surface 0.107 .087 .048	Upper surface -0.041 043 057 061	Lower surface 0.137 .105 .046	Upper surface -0.043 058 067 062 078	Lover surface 0.178 .140 .056	Upper surface -0.047 070 100 060 089	Lover eurface 0.211 .156 .059 .156	Upper surface -0.063 099 136	lover surface 0.238 .166 .051 - .184 .112	Upper surface -0.055 112 145	Lover surface 0.380 .306 .058 .223 .140
8.7	tion (in.) 10	dimension (% fuelage radius) 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3	Upper aurface -0.021 024 030 047 053 055 058	Lover eurface 0.107 .087 .048 .064 .039 .006	Upper surface -0.041 043 057 061 069 084	Lower surface 0.137 .105 .046 .088 .050 .005 .042 .019	Upper surface -0.043 058 087 062 078 108 066 087	Lover surface 0.178 .140 .056 .056 .082 .010 .085 .085	Upper surface -0.047 070 100 060 089 115	Lover surface 0.211 .156 .059 .156 .099 .100	Upper surface -0.06; 079 136 074 122 145	Lover surface 0.238 .166 .051 .184 .112 .003	Upper surface -0.055 112 145 067 147 069 144	Lover 4urface 0.80 .706 .058 .223 .140 .010
31.50	10 15 20	disension (# ruselage radius) 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	Upper nurface -0.021024030047053055058058	Lower	Upper surface -0.041 043 057 061 069 084 072 079 101 069 084	Lover surface 0.137 .105 .046 .050 .005 .005 .042 .019 032 .019	Upper surface -0.0k3 058 087 062 073 108 066 087 112	Lower surface 0.178 -110 -056 -130 -082 -010 -085 -040 -030 -056 -016	Upper eurface -0.047 070 100 060 099 115 063 095 117 058 100	Lower surface 0.211 .156 .059 .156 .099 .100 .108 .099 .026	Upper surface -0.063 079 136 074 122 145 077 151 153	Lover surfaces 0.238 .166 .051 .184 .112 .003 .131 .072 042 .095 .038	Upper surface -0.055 -112 -115 -067 -115 -1147 -069 -1144 -1147	Lover 4 urface 0.280 .306 .058 .223 .140 .010 .172 .058045
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	10 15 20 25	dimension (# ruselage radius) 8.7 8.7 8.7 8.7 8.7 8.7 70.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8	Upper surface -0.021024030047053053058056075062073061	Lower eurface 0.107 .087 .088 .064 .039 .006 .025 .007 024 007 001 002 001 002 001 002 008 001 002 008	Upper surface -0.0k1 -0.0k3 -0.077 -0.064 -0.08k -0.072 -0.079 -1.001 -0.069 -0.08k -0.09	Lover surface 0.137 .107 .046 .088 .050 .005 .042 .019 .032 .019009043	Upper surface -0.043058067078108066087112062093	Lover surface 0.178 .140 .056 .056 .010 .082 .010 .085 .040030 .056 .016047049006	Upper surface -0.047 070 100 060 089 115 063 095 117 058 100	Lover surface 0.211 .156 .059 .100 .108 .059 026 .071 .031 047	Upper surface -0.061 -0.09 -136074122185077131183071134136	lover surface 0.238 1.66 .051 .184 .112 .003 .131 .072 042 .095 .038 065	Upper surface -0.055 -112 -145 -067 -1144 -144 -147 -144 -167 -145	Lower 420 face 0.380
38.00 8.71 053 15 075 1 076 1 104 07 111 076 105 056 155 056 052 076 107 104 070 105 056 051 056 051 056 051 056 056 056 056 070 056 070 105 056 051 056 051 056 051 056 051 056 051 056 051 056 051 056 051 056 051 056 051 056 051 056 051 056 051 056 051 056 051 056 051 056 051 056 051 055 0	15 20 25 28.50	dimension (% fuselage radius) 8.7 8.2 70.7 8.7 8.2 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	Upper aurface -0.021024030057053055064075061073066078	Lover surface 0.107 .087 .088 .064 .019 .006 .025 .007 .024 .009 .006 .025 .007 .0016 .0016 .0016 .0016 .0018	Upper surface -0.043 -0.043 -0.07 -0.69 -0.68 -0.79 -1.01 -0.69 -1.01 -0.69 -1.01 -0.69 -1.01 -0.69 -1.01 -0.69 -1.01 -0.69 -0.79 -0.08	Lower surface 0.137	Upper aurface -0.043 -0.053 -0.057 -0.062 -0.067 -1.06 -0.067 -1.12 -0.062 -0.093 -1.10 -0.054 -0.054	Lover eurface 0.178 -140 -0.178 -140 -0.062 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00	Upper surface -0.047, -0.070 -100 -0.069 -115 -0.05 -117 -0.09 -110 -112 -0.09 -110 -110 -112 -0.09 -106 -0.09 -106	Lover eurrace 0.211 .156 .099 .100 .099 .100 .099 .006 .091 .001 .001 .001 .001 .001 .001 .001	Upper surface -0.079 -136079174172185077131134136065134134	Lower surface	Upper surface -0.079 -1112 -115 -117 -117 -114 -114 -114 -114 -117 -115 -111 -115 -111 -115 -117 -115 -117	lover 42/face 0.86 0.96 0.96 0.98 0.10 0.10 0.10 0.17 0.1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	100 (1n.) 10 15 20 25 28.50	disension (\$\frac{1}{2}\text{Tuse inger}\)	Upper surface -0.021 -0.024 -0.03 -0.053 -0.053 -0.054 -0.064 -0.064 -0.064 -0.064 -0.064 -0.065 -0.065 -0.065 -0.066 -0.076	Lower	Upper surface -0.0k1 -0.0k3 -0.0k3 -0.0k3 -0.0k3 -0.0k3 -0.0k4 -0.0k9 -0.0k4 -0.0k9 -0.0k4 -1.001 -0.066 -0.08 -0.066 -0.08 -0.066 -0.08 -0.066 -0.08 -0.066 -0.08 -0.066 -0.08 -0.066 -0.08 -0.066 -0.08	Lover surface 0.137 0.066 0.068 0.005 0.042 0.019 0.042 0.019 0.003 0.014 0.015 0.014 0.01	Upper aurtace	Lover Surface Control Contro	Upper eurface control of the control	Lover eurrace	Upper aurtace -0.069 -0.74 -0.72 -0.74 -0.72 -0.71 -0.	Lover eurface	Upper auritace of the control of the	lover eurland lover eurlan
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	10 (in.) 10 15 20 25 28.50 31.50	disension (\$\frac{1}{2}\text{Tue-lage}\) 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	Upper nutrace	Lover	Upper surface (10 to 10	Lover surface Lover surface	Upper surface of the control of the	Lever Surface O. 178 110 O. 178 110 O. 178 110 O. 178 O	Upper eurice	Lower surface 0.211 .156 .029 .108 .099 .206 .071 .001 .005 .005 .005 .005 .005 .005 .00	Upper aurrent - 0.069 - 0.069 - 0.069 - 0.069 - 0.069 - 0.069 - 0.069 - 0.069 - 0.069 - 0.069 - 0.076 - 0.077 - 0.071	lower emrison lower emriso	Upper surface of the control of the	Inver- 100 1
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	20 25 28.50 31.50 38.00	disension (** Tuse line 1.0	Upper nutrice (10 to 10	Lover eurres	Upper surface of the control of the	Lover surface (1.37	thpper surface the per sur		Upper Uppe	Control of the contro	Upper aurace of the control of the c	Lover 10 10 10 10 10 10 10 1	Upper north to the control of the co	Inver- 1016
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	20 25 28.50 34.50 38.00	disension (**Tuseline**)	Upper nurfee of the control of the c	Lover eurres	Upper surface -0.041 -0.043 -0.053 -0.051 -0	Lover surface (0.137 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Upper surface of the control of the		-0.047 -0.047 -0.059	Cover Cove	Upper auricular (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Lover europe 10 10 10 10 10 10 10 1	Upper our form of the form of	Iover 10 10 10 10 10 10 10 1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	10 10 15 20 25 28.50 31.50 38.00 41.50	dimension (**Frue-line** 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	Upper entres of control of contro	Control Cont	Upper exception of the control of th	Cover Cove	Upper	Lower	Open	Contest Cont	00000000000000000000000000000000000000	Lower Lower Lower	0,000 0,000	Lower Lowe
56.50 8.70530550530530510510500660660681\(\begin{array}{cccccccccccccccccccccccccccccccccccc	10 (in.) 10 15 20 25 26.50 31.50 31.50 41.50 41.50	disension (** Tuse line store of the store o	Upper Uppe	Compared Compared	Upper Uppe	Cover Cove	Upper	Lower surface Lower surfac	Open	Contest	Dipart D	Coop	Diplom D	Invest I
70.7059081073101076113068108101023058026	10 10 15 20 25 25 28.50 34.50 34.50 41.50 47.50 50.50	disension (** Tuse line store of the store o	Upper Uppe	Core	Upp	Cover	hyperall		Open	Contest	Upper control of the	Coor	District	Low- Low- Low- Low- Low- Low- Low- Low-
so so A 7 044 050 044 055 030 055 000 087 077 078 056	10 (in.) 10 15 20 28.50 31.50 38.00 41.50 47.50 50.50	disension (**Tuseline*) 8.1 8.7 8.7 8.7 8.7 8.7 8.7 8.7	Upper Uppe	Control Cont	Upp	Cover Cove	hyper hype		Open	Compared	Upper Uppe	Coor	Diper Dipe	Control Cont
99.50 8.7044048059069055059055009067077078 .025 82.305506306407608907707805907907907907907907907907907907911811711810714	10 (in.) 10 15 20 25 28.50 31.50 34.50 41.50 47.50 50.50 56.50	disension (** Tuse line store of the store o	Upper Uppe	Company Comp	Upp	Cover Cove	hyper- murrace hype		Open	Contest	Upper Uppe	Coor	Diploy D	Control Cont

TABLE I.- CONTINUED

(f) M,0.82.

	(atern)	т					Angle of	attack, i	Eress				
Sta- tion (in.)	intered dimension (\$ Tupclage radius)		4		÷ .		0	F .	2		À.		6
		Upper surface	Lover surface	Upper ourface	Lover surface	Upper surface	Lover surface	Upper curface	Lover surface	Upper nurface	Lover surface	Upper surface	Lower surface
10	8.7 \$2.3 70.7	0.06A .056 .051	-0.002 002 002	0.046 .039 .034	0.003 .004 .003	0.034 .032 .032	0.034 .034 .025	0.021 .021 .061	0.045 .043 .032	-0.001 0 .001	0.060 .051 .033	-0.006 0:6 007	0.093 .081 .048
15	8.7 42.3 70.7	.031 .022 .007	033 035 035	.012 .005 .001	028 030 030	.001 .004 .004	.001 .009 .009	010 015 013	.010 .001 004	037 037 033	.019 .006 ~.008	032 033 034	,050 .03A .006
50	8.7 12.3 70.7	00A 013 027	049 050 055	019 024 036	050 050 052	023 027 032	252 252 034	03A 037 041	021 023 032	051 047 059	014 019 039	050 048 058	.014 .003 019
25	8.7 42.3 70.7	022 034 046	058 058 058	036 038 052	061 061 062	034 042 043	042 042 043	043 052 052	03A 037 043	061 070 070	033 039 050	052 061 065	006 017 035
28.50	8.7 42.3 70.7	027 035 049	~.055 ~.058 ~.060	041 041 052	058 059 063	042 042	041 042 044	-,049 -,052 -,054	037 041 049	061 061 070	037 039 051	052 054 065	008 021 041
31.50	8.7 42.3 70.7	0\1 0\6 059	058 061 063	052 055 063	063 065 065	051 051 054	045 052 052	05A 05A 060	044 052 049	067 067 070	041 050 056	055 060 065	021 031 047
34.50	8.7 42.3 70.7	033 035 046	052 052 058	040 044 052	055 055 063	03h 041 043	041 043 041	043 037 052	042 043 045	052 059 061	039 050 052	041 050 054	019 030 043
38.00	8.7 42.3 70.7	044 054 055	058 058	052 058 058	063 063	049 052 049	049 043	05A 056 045	049 045	061 067 061	051 051	052 054 054	035 041
41.50	8.7 42.3 70.7	041 046 058	052 055 058	047 052 061	058 060 062	-,0k3 -,0k4 · -,051	049 049	059 051 054	045 049 049	059 059 052	050 052 059	050 050	030 041 050
44.50	8.7 42.3 70.7	055 058	052 050 059	062	058 055 063	052 052	045 044 051	045	049 049 053	061 063	050 050 061	052	030 039 052
47.50	8.7 42.3 70.7	060 011 055	046 048 055	047 017 058	052 052 059	043 008 043	-,043 -,043 -,043	044 010 049	054 054 049	050 017 060	048 050 060	037 008 052	030 039 050
50.50	8.7 42.3 70.7	058 058 068	058 063	063 063 075	063 069	054 054 060	054	056 055 053	056 060	062 061 071	063 070	052 052 061	050 052 063
53.50	8.7 42.3 70.7	055	046 056 058	061 063	058 062 063	052	049 053 053	05A	052 054 054	060 061	056 061 067	050	-,063 -,050 -,061
56.50	8.7 42.3 70.7	066 067 064	055 057 061	061 061 061	061 058 062	062 +.060 041	050 046 046	063 069 050	044 049 054	- 067 - 064 - 059	063 065 072	050 050 051	052 061 072
59.50	8.7 42.3 70.7	062 064 077	047 052 060	064 064 062	052 055 061	045 045 051	040 041 050	064 095 096	096 096 078	056 059 061	072 052 062 072	051 042 050 054	072 074 074
Sta- tion (in.)	lateral dimension (% fuselage radius)	8			0		2	niinck, do	14		16		18
	·	Upper surface	Lower surface	Upper surface	Lover surface	Uppor aurface	Lover surface	Upper surface	Lower surface	Upper surface	Lover	Upper eurfece	Lover
10	8.7 42.3 70.7	-0.024 024 036	0.109 .088 .0%	-0.036 046 059	0.142 .111 .053	-0.049 061 084	0.171 .126 .051	-0.050 072 110	0.211 551. 060.	-0.053 086 124	0.241 .175 060	-0.061 135	0.274
15	8.7 12.3 70.7	019 056 058	.064 .050 .009	058 069 082	.098 .099 .011	063 082 105	.121 .071 .010	063 091 117	.158 .097 .014	063 111 133	.183 .114 .014	-, 107 -, 085 -, 150 -, 167	.042 .217 .130 002
20	8.7 42.3 70.7	059 969 079	.031 .009 024	068 080 097	.053 .044 026	074 094 116	.071 .038 031	064 102 118	.105	065 118 132	.136 .075 030	011 166 1e8	.1tA .686 052
25	8.7 42.3 70.7	067 070 081	.003 013 038	-, 067 -, 080 -, 09)	086 219 039	071 094 115	.038 .012 050	058 102 117	.071 .025 051	063 121 130	.102 .047 061	088 164 166	.125
28.50	8.7 12.3 70.7	059 070 079	001 016 047	061 078 093	.020 008 050	061 043 107	.038 001 060	053 100 108	.066 .022 ~.0%	062 118 118	.083	168 168 169	.110
31.50	8.7 42.3 70.7	067 069 081	013 033 054	063 078 091	.009 013 058	063 093 092	.018 012 068	061 105 105	.048 .003 069	065 127 118	.070 .020 074	163 163 156	.047 .021 102
34.50	8.7 42.3 70.7	049 060 069	013 036 052	047 069 080	.009 013 057	050 083 094	.017 017 068	041 096 096	.002	-,047 -,117 -,109	.063	078 160 145	.088 .017 107
38:00	8.7 42.3 70.7	056 068 069	 036 056	052 074 078	030 059	-, 052 -, 054 -, 084	021 073	- 250 - 108 - 088	008 074	061 131 105	.003	-,0-1 -,177 -,144	.00.
¥1.50	8.7 42.3 70.7	049 058 069	02h 038 060	047 069 078	008 036 069	045 084 064	.004 034 079	044 104 066	027 017 055	054 121 107	.048 007 058	-,144 -,001 -,166 -,166	113 066 002
11.50	8.7 42.3 70.7	059 069	02k 037 067	069 074	013 036 072	094	094 638 084	108 087	.025 018 086	130 105	058 008 102	168 135	122
¥7.50	8.7 42.3 70.7	044 013 060	024 038 061	037 024 069	012 036 074	040 040 082	001 037 065	067 053 065	006 019 087	105 052 069 096	.048 008	135 040 040 127	130 055 011 126
50.50	8.7 12.3 70.7	052 063 069	058 078	0 ² 7 073 073	056 090	056 095 005	050 050	050 113 087	087 032 106	096 074 121 106	102 030 118	127 102 157 135	126 030 146
53.50	8.7 42.3 70.7	058 063	059 057 074	072	032 052 085	0)3 091	018 051 046	105 063	.003 039 105	-, 106 -, 103 -, 116 -, 094	118 030 117	135 145 124	146 036 033 146
56.50	8.7 42.3 70.7	052 050 056	052 063 085	047 074 066	041 061 096	059 096 073	030 055 108	063 105 078	018	094 080 117 094	117 002 050 135	124 102 146 108	.016
59.50	8.7 42.3 70.7	041 055 061	043 061 086	066 041 075 069	036 061	073 051 087 079	108 025 055 108	078 063 100 089	119 910 052 121	0 0 0 113	.003	- 006	043 157 020 044
	10.1	061	006	069	097	079	-, 108	089	-,121	105	110	135 124	163

TABLE I.- CONTINUED

(g) M,0.84.

In	•	Lateral					Allegae or a	tack, degre		, 1				5
10	Sta- tion (in.)	dimension (forelage	Upper	Lover	Upper		Upper	Lower	Upper		Upper		Upper	
10	10	8.7	0.068	0.009	0.053	0.012	0.019	0.020	0.005	0.033	-0.005 005	0.062	-0.062	0.096 .0 6 2
10	15	8.7		018 027	017	-,020 -,028	013 015	013	030 030	005 013	038 038	.022 .006	039 041	.053 037
10.7	20	70.7	.009 -,002	040	~.012	-,026	015			020	059	005	041 055 058	010
19.75	25	8.7	-,029 -,018	018	031	050	051	 053	055	047	059 065	038 032	066	028
10.7	00 60				044	053	056	-,056	066	060	070	049	071	039
1.		42.3 70.7	031 040	048 053	039 047	053 055	055 057	05 6	071	057 064	067 074	- 043 - 056	071	023 041
10.71	31.50	8.7 42.3 70.7	+.040 i	051	050 060	060 060	065 067	065 058	074 076	-,065 -,065	070 079	054 059	066 071	033 047
	34.50	8.7 42.3 70.7	038	043	033 042 047	052 052 053	048 054 056	056 056 056	064	054 060 065	062 665	049	052	030
11,20	38.00	8.7 \$2.3	038 048		055	055 043	067		074	065	070 065	054	052 058 060	039 049
March Marc	11.50	8.7 42.3	040 040	- 045	- Okla	053 053	056 056	058 062	065 065	063 065	059 062	019 059	-,052	039
11,50	11.50	8.7	049	- Oka	053	- 053	065	- 058	074	065 065	-,067	051 054	055	033 039
19.50 1.00	\$7.50	8.7	~ 03h	- 040	-,010	017 050	056 018	056 056	065 024	060	057 018	049 054	044 009	028 039
79.77	50.50	8.7	051		055 058	-,061	068 067	067	076 078	076	065 065	068	051 055	
To To To To To To To To	53.50	70.7		042	064	062	072	068 064 064	076 	067 060		059 065		- 020
99.50	56.50	70.7	052	051	- 055	055	064 072	065 071	076		068	070	049 055	
To.77				057	064	062	062	011	071	082	~.063		056	072
Classificant Clas	59.50	70.7	060	047	063	049	068	060	072	070	061	002	049	049
10 8.7 -0.00 -0.01 -0.00 -0.01 -0.01 -0.00 -	59.50	70.7 8.7 42.3 70.7	060 062	047 050	063 063	049 054	068 071	-,067 -,068	072 078	070 074 083	061	082 072 082	051	062 081
12-3	Sta- tion	70.7 8.7 42.3 70.7 Lateral dimension of fuselage	060 062 073	047 050 059	063 063 070	049 054 061	068 071	067 068 ttack, degr	072 078	074 083	061 064	16 Lower	051 059	081
19	Sta- tion (in.)	8.7 \$2.3 70.7 Lateral dimension for fuselage ratius)	060 062 073 073	047 050 059	-,063 -,063 -,070 Upper	049 054 061	Angle of a	-,067 -,068 ttack, degs 12 Lower surface	072 078	Lover surface	-,061 -,064 Upper surface	Lower surface	-,051 -,059 Upper surface	081 18 Lower surface
20	Sta- tion (in.)	TO.7 8.7 42.3 70.7 Lateral dimension for fuselage railus) 8.7 42.3	060 062 073 Upper surface -0.027 031	047 050 059	063 063 070 Upper surface -0.033 043	049 054 061	Angle of a	ttack, degr ttack, degr 12 Lover surface 0.171 129	-,072 -,078 -,078 Upper surface -0,056 -,080 -,111	07k 083 Lower surface 0.211 .15k .053	061 064 Upper surface -0.052 090 126	16 Lower surface 0.243 .176 .059	051 059 Upper surface -0.074 142 170	081 Lower surface 0.277 .199 .044
10	Sta- tion (in.)	70.7 8.7 8.2.3 70.7 Laterul discension (\$\frac{\partial}{\partial}} 8.7 42.3 70.7 8.7 42.3	-,060 -,062 -,073 -,073 -,073 -,031 -,039 -,057 -,059	047 050 059 059 059 069 .049 .063 .039	-,063 -,063 -,063 -,070 Upper surface -0,033 -,096 -,096 -,096	049 054 061 Lower surface 0.139 .108 .053 .059	068 071 Angle of a Upper surface 046 061 067 080	-,067 -,068 ttack, degx 12 Lover surface 0.171 .129 .053 .124	072 078 Upper surface -0.060 111 069 099	07k 083	Upper aurface -0.052 059 126 069	16 Lower surface 0.243 .176 .059 .187 .112 .010	051 059 Upper surface -0.07k 1k2 170 093 157	081 Lower surface 0.277 .199 .044 .220 .134008
28.50	Station (in.)	70.7 8.7 8.2.3 70.7 Lateral discussion 6 russinger ratius) 8.7 8.2.3 70.7 8.7 8.2.3 70.7 8.7 42.3 70.7	060 062 073 073 073 097 097 067 069 067	047 050 059 3 Lower surface 0.106 0.99 .049 .063 .039 .006	-,063 -,063 -,063 -,070 Upper surface -0.033 -,043 -,096 -,096 -,097 -,079	049 054 061	068 071 Angle of a Upper surface -0.046 081 067 080 103	067 068 ttack, degr 12 Lover surface 0.171 .129 .053 .124 .005 .009	072 078 Upper surface -0.056 011 069 099 130	074 083 Lower surface 0.211 .154 .053 .149 .094 .010	061 06A Upper surface -0.052 090 116 069 1136	16 Lower surface 0.243 .176 .059 .187 .112 .010 .133 .080	-,051 -,059 Upper eurface -0,07k -,170 -,093 -,171 -,095 -,171	081 Lower surface 0.277 .199 .044 .220 .134008 .167 .091
31.50	Sta- tion (in.) 10	70.7 8.7 8.2.3 70.7 Lateral disconsion 6. ruselage ratius) 8.7 8.7 8.2.3 70.7 8.7 8.2.3 70.7 8.7 8.2.3 70.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8	-,060 -,062 -,073 -,073 -,073 -,073 -,073 -,079 -,069 -,069 -,069 -,069	047 059 059 3 Lover surface 0.106 .090 .049 .063 .036 .036 037 005	-,063 -,063 -,070 Upper aurface -0.033 -,043 -,056 -,067 -,077 -,079 -,079	-,049 -,054 -,061 -,061 -,061 -,061 -,061 -,061 -,063	068071 Angle of a Upper surface086081067080103069112066092	-,067 -,068 ttack, degu 12 Lower surface 0.171 .129 .075 .009 .077 .049 .049	072 078 Upper surface -0.0% 080 111 069 999 130 016 106 132 068	074 083	-,061 -,064 Upper surface -0.052 -,069 -,116 -,069 -,116 -,126 -,126 -,066 -,126	062 Lower surface 0.243 .176 .059 .187 .112 .010 .133 .060 .033	-,051 -,059 Upper surface -0,074 -,142 -,170 -,093 -,157 -,171 -,174 -,174 -,201 -,180	061 Lower surface 0.277 199 .044008 134006 .0167 .091066
34.50 8.7 057 058 059 068 099 066 110 068 124 065 127 126 126 126 127 126 126 126 127 126 126 126 127 126 126 126 127 126 126 127 126 126 127 126 126 127 126 126 127 126 126 127 126 126 127 126	Sta- tion (in.) 10 15	70.7 k2.3 70.7 k2.3 70.7 Lateral disension (fracing) k2.3 70.7 k2.3	-,060 -,062 -,073 -,073 -,073 -,073 -,073 -,073 -,067 -,067 -,065 -,069 -,069 -,069 -,069	047059059059059063	-,053 -,053 -,070 -,070 -,070 -,073 -,073 -,074 -,075 -,077 -,079 -,079 -,079 -,079 -,079 -,079 -,079 -,079 -,079	-,0ky -,061 -,061 -,061 -,061 -,061 -,061 -,061 -,073 -,079 -,079 -,022 -,045	068071 Angle of a Upper surface -0.046093081080103066992112066992111098	-,067 -,068 ttack, degw 12 Lover surface 0.171 .129 .053 .124 .075 .009 .040 -,049 .049 .049 .049 .040	072 078 Upper surface -0.056 080 111 069 132 068 110 068 133 068 139	074 083	-,061 -,064 Upper surface -0.052 -,090 -,126 -,090 -,114 -,136 -,070 -,123 -,096 -,133 -,096 -,133 -,096 -,133 -,096 -,133 -,098 -,126	062 Lower surface 0.243 .176 .059 .187 .112 .010 .033 .080 .033 .101 .047058 .090 .031	051 059 Upper surface -0.07k 142 170 057 171 095 174 201 180 171 201 191 201 193 171	081 Lower surface 0.277 .199 .041 .220 .134008 .167 .091060 .266 .276 .276 .281 .381 .382 .383
10.7 080 088 079 077 091 088 110 000 118 000 118 000 118 000 118 000 118 000 118 000 118 000 118 000 118 000	Station (in.) 10 15 20 25 28.50	70.7 82.3 70.7 1 Lateral disension of fuse lage ratius) 6.7 70.7 82.3 70.7 8.7 8.7 8.7 8.3 70.7 8.7 8.3 70.7 8.7 8.3 70.7 8.7 8.7 8.7 8.3 70.7 8.7 8.3 70.7 8.7 8.3 70.7 8.7 8.3 8.3 70.7 8.7 8.3 8.3 70.7 8.7 8.3 8.3 70.7 8.7 8.3 8.3 8.3 70.7 8.7 8.3 8.3 70.7 8.7 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3		-047 -059 -059 -059 -059 -059 -063 -063 -063 -063 -063 -063 -037 -003 -005 -004 -004 -004 -004 -005 -004 -005 -005	-, 053 -, 063 -, 070 -, 070 -, 070 -, 070 -, 071 -, 075 -, 077 -, 079 -, 077 -, 079 -,	,049,051,061	068071 Angle of a Upper surface004081067080081069090112066092111098098090109090109090109090109090109090109090109090109090090090090090	-,067 -,068 ttack, degw 12 Lover surface 0,171 1,129 .075 .040 -,030 .049 .049 .049 .049 .049 .049 .049 .049 .040	072 078 Upper surface 080 110 099 130 110 130 168 113 068 113 062 110 120 120 130	074 083 Lower surface 0.211 .154 .013 .149 .094 .010 .095 095 .075 .011 063 .010 .063 .010 .063 .010 .063	Upper surface -0.052 090 114 136 070 123 126 133 066 133 066 133 066 126 1	-,062 Lower surface 0.2k1, 176 0.59 1.112 0.10 0.033 1.01 0.07 -,078 0.090 0.01 0.090 0.091 0.090 0.090 0.090 0.090	051 059 Upper surface -0.07h 142 170 157 171 093 157 171 174 174 190 171 190 171 190 179 1	-,081 Lower surface 0.277 .199 .041 .220 .134 .067 .060 .126 .077 .081 .047 .092 .092
10, 10	Station (in.) 10 15 20 28.50	70.7 82.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7 7		-047 -059 -059 -059 -059 -059 -063 -063 -063 -063 -064 -064 -064 -064 -064 -064 -064 -064	-,063 -,063 -,070 -,070 -,070 -,070 -,071 -,075 -,076 -,077 -,079		068071 Angle of a Upper surface -0.046058061067080103066992112086992109066990109066990109066990109066990109066990109	067068 ttack, degs 12 Lover surface 0.171 1.129 .073 .021 .040 .075 .040 .049 .093 .049 .009 .049 .000 .049 .000 .049 .000 .000	072 078 078 076 060 110 062 113 102 062 116 116 116 116	074083 Lower surface 0.211 .154 .093 .106 .095 .007 .106 .095 .010 .010 .001 .002 .001	-,061 -,064 -,064 -,064 -,062 -,070 -,069 -,113 -,136 -,066 -,126 -,126 -,126 -,126 -,126 -,126 -,126 -,127 -,133 -,126 -,127 -,127 -,129	-,082 Lower surface 0,2%; 1176 0,592 1.117 1.117 1.113 0.080 0.333 1.001 0.47 -,078 0.091 0.016 -,081 0.088	051059 Upper surface -0.074170193157093157174174174171093171093179169169169	061 Lower surface 0.277 .199 .041 .220 .134006 .107060 .126 .077082 .131 .047092 .266109
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Station (in.) 10 15 20 25 28.50 31.50	70.7 k2.3 70.7 tateral disender for files files for files files for files for files files for files files for files for files files for files f	060062073 Upper surface surface031099067069089	-047 -059 -059 -059 -059 -059 -059 -063 -063 -066 -066 -037 -005 -066 -077 -077 -077 -077 -077 -077 -077	-,063 -,070 -,070 -,070 -,070 -,070 -,070 -,070 -,071		068071 Angle of a Upper surface006001002001006003001009102006009102006008008008008008008008008008	-,067 -,068 Lower -,068 Lower -,071 -,129 -,073 -,079 -,07		074083 Lower surface 0.211 .154 .052 .052 .071 .061 .077 .061 .092077 .061 .000077 .001007	-,061 -,064 -,064 -,064 -,062 -,075 -,066 -,116 -,075 -,123 -,123 -,123 -,123 -,123 -,123 -,123 -,125	082 Lower surface 0.243 0.243 0.243 1.12 0.10 0.30 0.31 0.47058 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93	051059 Upper surface -0.07h110091171097171201180171092181067067170166708217018671867	081 Lower surface of the control
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Station (in.) 10 15 20 28.50 31.50 38.50	70.7 ke.3 70.7 latern1 disented fruselage retitus) 6.7 ke.3 70.7 6.7 ke.3 70.7 ke.3			-,053 -,063 -,070 Upper aurface aurface -,003 -,003 -,003 -,005 -,006 -,007 -,007 -,009 -,00 -,00	,0ky,061 Lover surface 0.139,061 Lover surface 0.139,061,062,062,062,063,063,063,063,063,063,063,063,063,063,063,063,063,063,063,063,063,064	068071 Angle of a Upper surface -0.046081069080103069102069102066092111078066090102066090102066091068	067068 ttack, degw 2 Lowers surface 0.171 .129 .073 .089 .049 .049 .049 .049 .049 .049 .049 .04	072078078078078078079100101083102083110103104101	074083 Lower surface 0.211 .054 .010 .106 .072075 .010 .001007 .001007 .001007 .001000000000000	-,061 -,064 -,064 -,064 -,062 -,065 -,166 -,076 -,176	-,062 Lower surface 0.2k3 176 0.2k3 176 0.592 187 1187 0.11 0.10 0.033 0.034 0.035 0.036 0.036 0.036 0.036 0.036 0.036 0.036	051059 Upper surface -0.0741k21k7190157191171191191102103107106106106106106106106	081 Lower surface 0.277 1.99 .044 220 .113060 .126 .0707 .0707 .097 .097 .097 .097 .097 .097 .097 .
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Station (in.) 10 15 20 28.50 31.50 38.00	70.7 8.7 1.ateral disense of free properties 6.7 8.2,3 70.7 8.7 8.7 8.7 8.7 8.7 8.7 8.		-047 -059 -059 -059 -059 -059 -059 -059 -059	-,063 -,070 Upper surface -,043 -,043 -,043 -,045 -,077 -,07	,0ky,054,061 Lover surface 0.139,063,063,063,063,063,065,069	068071 Upper sturface0.690.690.690.690.690.690.66	-,067 -,068 ttack, degu 22 surface 0.171 .009 .009 .009 -,049 .009 -,049 .009 -,04	-072 -078 -078 -078 -078 -078 -0.00	074083 Lower autrece 0.211 .054 .054 .010 .106 .052075 .010 .010 .010 .010 .001 .002003 .000006 .002006 .002006 .006 .006 .006 .006 .006 .006 .00	Upper surface06106306406406406910606910710808108109129129129120120120120121120121120121	062 Lower surface 0.243 .176 0.243 .176 .187 .112 .010 .081 .031 .070 .069 .016061 .068 .006006006006006006006	0910990990981700931710991712091811091901911091911091911091911091191109119110911911091191109119110911911091	061 Lower aurrace of control o
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Station (in.) 10 20 29 28.50 31.50 38.00 44.50	70.7 k2.3 70.7 70.7 Latern1 disense for the lage retilist for the		-047 059 059 059 059 060 061 -	-063063070 Upper aurrace aurrace067070071	,019,061 Lover surface 0.130,061 Lover surface 0.130,001,002,002,003,003,003,004,003,005,004,005,007	068071 Angle of a Upper surface098099087099112066092111098090109066090109066090061091068	-,067 -,068 Lover surface 0.171 129 -,073 129 -,073 -,075 -,077 -,040 -,079 -,040 -,079 -,040 -,079 -,040 -,079 -,040 -,079 -,040 -,079 -,040 -,079 -,040 -,079 -,040 -,079 -,040 -,079 -		074083 Lover surface 0.211 .093 .094 .010 .095 .094 .010 .005 .006 .007 .006 .007 .006 .007 .007 .001 .001 .002 .007 .007 .001 .001 .002 .007 .002 .007 .001 .001 .002 .007 .002 .003 .003 .003 .003 .004 .005 .006 .006 .007 .008 .008 .009 .009 .009 .009 .009 .009	-,061 -,064 -,064 -,064 -,064 -,069 -,126 -,069 -,123 -,069 -,123 -,126 -,069 -,123 -,126 -,126 -,126 -,126 -,126 -,126 -,126 -,126 -,127 -,126 -,126 -,127 -,126 -,127	-,062 Lower surface 0.243 .176 .079 .116 .010 .021 .010 .033 .010 .047 -,058 .090 .031 .007 .069 .069 .069 .069 .069 .069 .069 .069	Upper surface Upper surface	-,061 Lower aurrace 0.277 .044 .220 .134,006 .167 .991 .091 .091 .091 .092 .006 .105 .092 .009 .007 .118 .092 .009 .009 .009 .009 .009 .009 .009
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Station (in.) 10 15 20 25 34.50 34.50 47.50	70.7 k2.3 70.7 70.7 Latern1 claental c		-047 -059 -059 -059 -059 -059 -059 -059 -059	-,063 -,070 -,070 -,070 -,070 -,071 -,064 -,077 -,078 -,079	,019,054,061 Lover surface,013,061 Lover surface,013,025,025,025,025,025,025,025,026,026,026,026,027,026,026,027,028,029 -	068071 Upper aux races -0.067081089089090112066092112066092112066092112066092112066092112066092104091069069091066	-,067 -,068 stack, degs 22 surface 0.171 .029 .073 .075 .099 .040 .000 -,049 .040 .000 -,049 .040 .000 -,049 .040 .000 -,049 .040 .000 -,071 .001 .002 -,071 .003 .009 -,079 .001 .009 -,079 .001 .000 -,079 .001 .000 -,079 .001 .000 -,079 .001 .000 -,079 .001 .000 -,079 .001 .000 -,079 .001 .000 -,079 .001 .000 -,079 .001 .000 -,079 .003 .000 -,079 .003 .000 -,079 .003 .000 -,079 .003 .000 -,079 -,079 .000 -,079 -,07		074083 Lower surface surface 0.221 0.154 0.093 0.090 0.005 0.007 0.001 0	-,061 -,064 -,064 -,064 -,064 -,069 -,116 -,066 -,126	062 Lower surface 0.2405205	0910990990931170093171097171091109	-,061 Lower auritace 0,277 104 220 1134 -,062 -,062 -,063 -,067 -,067 -,077 -
10.7	Station (in.) 10 15 20 28.50 31.50 38.50 47.50 50.50	70.7 \$2.7 70.7 \$2.7 70.7 1		-047 -059 -059 -059 -059 -059 -059 -059 -059	-,063 -,070 Upper surface -,013 -,064 -,067 -,07	,019,061 Lover	068071 Upper aux races -0.067081089089090112066092112066092112066092112066092112066092112066092104091069069091066	-,067 -,068 Lower surface 0.171 .029 .075 .075 .099 .040 .000 .040 .040 .040 .040 .040	-072 -078 -078 -078 -078 -078 -078 -078 -078	074083 Lover surface 0.211 .053 .106 .094 .010 .095 .074 .010 .0072077 .011 .001 .007 .007 .008007 .008	-,061 -,064 -,064 -,064 -,064 -,066 -,066 -,126 -,066 -,136 -,136 -,146 -,136 -,146 -,136 -,146 -,136 -,146	062 Lower Lower	091099 Upper auritace -0.074170180171171180171180181	-,061 Lover surface 0.277 .199 .041 .220 .134 .220 .230 .067 .067 .067 .077 .082 .205 .205 .205 .205 .205 .205 .205 .20
50 50 8.7049049043050050025070016081 .001114 .015	Station (in.) 10 15 20 28.50 31.50 38.50 47.50 50.50	70.7 k2.3 70.7 lateral disense with second s		-047079079079079079079079079083083084096091097085084096097088096097098098	-,063 -,070 -,070 -,070 -,070 -,071 -,072 -,077	,0ky,054,061 Lover surface 0.139,063,063,063,063,063,065,065,065,067,067,013,067,013,014,015,016,017,017,018	068071 Upper surface0.046067069069069071066092112066092109080091081091086091091086091091086091091086091091086091091086091091086091091086091091086091091086091091086091086091086091086091086091086091086091086091086091086091086091086091086091086091086091086091096	067068 Luver aux face 0.117 .029 .029 .029 .040 .030 .049 .040 .007 .010 .040 .007 .011 .019 .009 .040 .007 .011 .019 .009 .040 .007 .011 .019 .009 .009 .009 .009 .009 .009		074083 Lover surface 0.211 .053 .154 .053 .106 .094 .010 .061 .062 .075 .061 .061 .061 .061 .061 .061 .061 .061	Upper surface	062 Lower Lower	091099 Upper auritace -0.074 -1.170 -0.03 -1.171 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.201 -1.171 -2.202 -2.	-,061 Lover surface 0.277 .197 .047 .220 .134 .220 .136 .067 .067 .067 .077 .082 .047 .092 .0114 .092 .014 .093 .093 .093 .093 .093 .093 .093 .093
	Station ((in.) 10 12 20 25 31.50 38.50 47.50 50.50 50.50 50.50	70.7 \$2.7 70.7 \$2.7 70.7 \$2.7 70.7 \$2.7		-047 -059 -059 -059 -059 -059 -059 -059 -059	- 063 070 070 070 070 071 072 071 072 072 072 073 073 074 074 072 074 072 074 072 072 072 072 073 073 074 072 074 072 072 073 074 		068071 Angle of a surface008009	067068 Lover surface 0.171 1.29 0.771 0.009019049049049093094093093094093093094093093094093093094093093094093093094093094099099099		074083 Lower surface 0.211083094095095095101095102095103095103095103095103095103095103095103095103095103	-,061 -,064 -,064 -,064 -,064 -,069 -,126 -,069 -,136 -,069 -,136 -,069 -,136 -,069 -,136 -,069 -,136 -,069 -,136 -,069 -,136 -,069 -,136 -,069 -,136 -,070 -,136 -,136 -,08 -,136 -	062 Lower surface 0.24 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02	091099099093170093171093171091171092181169190191102189	-,061 Is borr surface 0.277 .199 .041 .199 .041 .199 .040 .100 .100 .050 .100 .050 .050 .050 .05

TABLE I.- CONTINUED

(h) M,0.86.

tion (in.)	interal					Angle of a	tteck, degr	708					
77.	dimension fuseinge		1		-2		0		2				6
	redius)	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface
10	8.7 42.3 70.7	0.064 .060 .050	0,006 ,006 ,006	0.054 .054 .043	0.012 .012 .011	0.0k2 .0k1 .0k0	0.034 .034 .030	0.023 .023 .023	0.047 .044 .039	0.006 .007 .007	0.071 .062 .044	-0.002 002 004	0.105 .093 .061
15	8.7 \$2.3 70.7	.029 .017 .007	024 034 030	.020 .014 .006	022 031 029	.010 .002 .002	0 009 008	012 012 012	007 001 003	024 024	077 087 .005	034 034 036	.061 .040 .019
20	8.7 \$2.3 70.7	008 014 026	049 051 056	017 019 031	046 046 051	019 021 023	029 030 031	035 035 037	022 024 035	046 047 049	008 017 036	049 053 057	.024 .008 014
	8.7 \$2.3 70.7	024 036 046	056 056 057	031 039 043	054 054 060	031 041 041	041 041 042	045 050 054	037 037 043	057 062 062	027 033 046	-,053 -,060 -,065	.003 011 034
28.50	8.7 42.3 70.7	026 037 046	055 055 058	031 040 052	052 043 060	-,039 -,040 -,042	040 041 044	047 050 054	040 040 045	057 058 068	031 036 046	049 055 065	002 013 034
31.50	8.7 42.3 70.7	046 047 061	057 058 061	050 051 060	060 062 062	047 047 050	045 050 047	056 056 061	~.048 ~.050 ~.048	064 064 067	038 048 048	055 055 065	013 028 044
34.50	8.7 42.3 70.7	033 040 048	05h 051 056	031 041 050	052 052 053	031 041 042	042 042 042	043 045 048	043 043 045	046 048 057	036 038 048	-,042 -,049 -,055	013 025 042
38.00	8.7 \$2.3 70.7	046 055 056	056 056	050 051 052	057 057	042 052 08	047 042	056 058 047	~.047 ~.045	059 064 057	047 048	046 055 055	 034 044
11.50	8.7 42.3 70.7	044 046 056	055 056 057	043 050 054	054 054 054	041 041 047	044 044 044	047 048 052	045 050 050	052 054 059	043 048 054	042 044 055	023 034 046
¥4.50	8.7 42.3 70.7	055 058	051 052 061	054 057	052 052 062	 050 050	-,044 -,042 -,051	056 055	045 045 055	058 059	046 047 058	 049 055	023 034 054
47.50	8.7 42.3 70.7	043 008 055	048 048 055	043 020 052	050 051 052	-,040 -,002 -,042	-,042 -,042 -,043	046 008 047	045 045 048	048 008 054	040 046 051	036 002 049	023 034 049
50.50	8.7 42.3 70.7	057 057 069	058 066	061 061 064	060	-,054 -,052 -,055	052 054	061 059 061	059 061	059 059 064	059 067	046 049 060	049 065
53.50	8.7 42.3 70.7	054 061	053 056 056	-,054 -,060	052 054 059	047 047	044 046 051	052 052	050 054 055	054 056	049 057 061	044 049	034 044 057
56.50	8.7 42.3 70.7	066 066 066	058 058 060	068 068 064	-,062 -,060 -,065	060 060 047	-,051 -,050 -,050	061 061 047	055 052 053	059 059 052	059 059 064	044 046 055	055 060 074
59.50	8.7 42.3 70.7	063 066 080	049 051 060	066 066 074	050 055 064	051 051 055	040 044 050	051 050 055	047 051 053	048 052 056	053 062 064	053 053	050 060 076
tion (Lateral dimension	Upper	8 Lower	Upper	10		ttack, degr		Lower	Upper	16 Lower	Upper	18 Lower
(10.)	radius)	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface		surface
10	8.7 42.3 70.7	-0.026	0.123	-0.026								surface	
15		022 026	.102 .060	028 044	0.150 .120 .066	-0.024 033 053	0,166 ,134 ,073	-0.048 069 106	0.115 .162 .062	-0.067 107 145	0.241 .178 .051	-0.055 110 141	0,289 .214 .068
	8.7 42.3 70.7	026 045 050 056	.060 .079 .049 .018	028 044 049 058 070	.120 .066 .099 .067 .024	033 053 052 061 075	.134 .073 .119 .077 .025	-,069 -,106 068 096 122	0.115 .162 .062 .162 .104	-0.067 107 145 077 130 152	0.241 .178 .051 .183 .109 002	-0.055 110 141 066 141 149	0,289 ,214 ,068 ,234 ,152 ,016
20	8.7 \$2.3 70.7	026 045 050 056 058 066 077	.060 .079 .049 .018 .039 .018 019	028 084 058 070 060 070 089	.066 .099 .067 .024 .055 .032 018	033 053 052 061 075 078 073 042	.134 .073 .119 .077 .025 .080 .042	-,069 -,106 -,068 -,096 -,122 -,069 -,106 -,114	0.115 .162 .062 .162 .104 .015	-0.067 107 145 077 130 152 066 145 153	0.241 .178 .051 .183 .109 002 .134 .072 044	-0.055 110 141 066 141 149 073 149 150	0,289 .214 .068 .234 .152 .016 .178 .104 036
25	42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	026 045 050 056 058 066 077 061 068 084	.060 .079 .049 .018 .039 .018 019 .009 008	028 044 049 058 070 060 070 089 075 091	.120 .066 .099 .067 .024 .075 .032 018 .026 .005 037	033 053 052 061 075 058 073 042 053 074 093	.134 .073 .119 .077 .025 .080 .042 -,012 .042 .018 -,032	-,059 -,106 -,058 -,056 -,122 -,069 -,106 -,114 -,067 -,109 -,122	0.115 .162 .062 .162 .104 .015 .111 .075 028	-0.067 107 145 077 152 086 145 153 077 150	0.241 .178 .051 .183 .109 002 .134 .072 044 .032 076	-0.055 110 141 066 141 149 073 150 071 152 146	0.289 .214 .068 .234 .152 .016 .178 .104 036 .141 .068 069
25 28.50	\$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7	026 045 056 058 066 077 061 068 084 084 066 082	.060 .079 .049 .018 .018 019 .009 008 035	028 044 049 058 070 060 070 089 075 091 094 076 086	.120 .066 .067 .024 .057 .032 018 .005 037	033 053 052 061 075 058 073 062 074 093 071 084	.134 .073 .119 .077 .025 .080 .042 .018 .018 .035 .035 .015	069 106 069 122 069 114 067 109 122 057 109	0.115 .162 .162 .104 .015 .015 .015 028 .077 028 .077 .035 051	-0.067 107 145 077 152 086 145 153 076 150 150	0.241 .178 .071 .183 .109 002 .072 044 .094 .094 .092 076	-0.055 110 141 066 141 149 150 071 152 146	0.289 .214 .208 .234 .152 .016 .178 .104 036 .141 .068 069
25 28.50 31.50	\$2-3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7	026 045 050 056 056 067 061 068 068 068 066 062 062	.060 .079 .049 .018 .039 .018 019 .009 008 035 .007 014 .013	086 049 058 070 050 070 069 075 091 054 070 086	.120 .066 .099 .067 .024 .032 018 .026 .009 037 .024 039 .002 039	033 053 052 061 075 078 073 074 093 071 084 053 069 069	.134 .073 .119 .077 .085 .082 .042 .018 .018 .019 .015 .015 .051 .000 .004	-,069 -,106 -,096 -,122 -,069 -,106 -,114 -,067 -,109 -,122 -,057 -,104 -,112 -,067 -,114	0.115 .162 .062 .163 .015 .015 .015 .057 .067 .067 .067 .069 .069 .069	-0.067 -1.107 -1.145 -0.077 -1.152 -0.086 -1.145 -1.153 -0.077 -1.150 -1.150 -1.150 -1.150 -1.150 -1.150 -1.150 -1.150	0.241 .178 .051 .199 002 .372 04 .072 056 .082 055	-0.055 -1.111 -0.066 -1.111 -1.129 -0.073 -1.129 -0.071 -1.126 -1.126 -1.126 -1.126 -1.126 -1.126 -1.126 -1.126 -1.127 -1.129	0.289 .214 .058 .234 .178 .016 .178 .104 .036 .141 .059 .059 .077 .077 .077
25 28.50 31.50 34.50	\$2-3 70-7 8.7 \$2.3 \$2.3	086085096096096096096096098088088088088088088088088088088088	.060 .079 .049 .018 .039 .018 .019 .009 .009 .001 .013 .013 .012 .02 .067 .047	028 049 049 056 070 060 070 089 075 091 094 066 069 069 069 069	.120 .066 .067 .024 .075 .032 .032 .035 .005 .007 .039 .008 .008 .009 .009 .009 .009	033 052 065 075 075 082 074 074 071 074 073 084 073 084 093 084 093 084 093 084 093 084 093 084 093 084 093 094	.34 .673 .119 .685 .682 .682 .682 .682 .683 .693 .693 .693 .693 .693 .693 .693 .69	669 068 068 082 122 069 114 067 122 07 121 067 212 067 212 067 212 067 212	0.115 .162 .162 .104 .015 .015 .015 .015 .015 .015 .015 .028 .07 .028 .07 .029 .099 .099	-0.067 -1.175 -1.175 -1.175 -1.152 -1.152 -1.153 -1.153 -1.150 -1	0.241 .178 .071 .183 .109 002 .134 .072 044 .032 076 .082 .034 089	-0.050 -1.011 -0.061 -1.041 -1.049 -1.050 -1.071 -1.050 -1.067 -1.067 -1.071 -1.067 -1.071 -1	0.289 .234 .068 .234 .178 .016 .178 .104 .096 .141 .068 .069 .069
25 28.50 31.50 34.50 38.00	\$2.3 70.7 \$.7 \$2.3 \$70.7 \$.7 \$2.3 \$70.7 \$.7 \$2.3 \$70.7 \$.7 \$2.3 \$70.7 \$.7 \$2.3 \$70.7	086095096096096096096098088088088089086096096096096096096096096096096096096	.060 .079 .049 .018 .039 .039 .039 .039 .039 .039 .039 .039	028 044 049 076 070 060 079 079 071 074 074 060 069 079 079 070 060 079 079 070 060	.120 .066 .099 .067 .024 .072 .018 .026 .009 .037 .042 .008 .008 .008 .008 .008 .008 .008 .00	033 052 067 078 078 074 093 071 084 093 071 084 092 074 092 074 074 075 076 		-,669 -,068 -,069 -,122 -,069 -,114 -,07 -,122 -,07 -,122 -,07 -,122 -,07 -,124 -,124 -,124 -,07 -,081	0.115 .162 .162 .162 .103 .105 .107 .005 .077 .035 .097 .099 .099 .099 .099 .099 .099 .099	-0.067 -107 -135 -077 -139 -152 -086 -155 -150 -150 -150 -150 -150 -150 -150	0.241 .178 .051 .183 .109 -002 .072 -04 .072 -074 .072 -076 .076 .076 .076 .076 .076 .076 .076	-0.000 -1.111 -0.001 -0	0.289 .284 .068 .234 .152 .016 .106 .107 .096 .068 .068 .069 .067 .077 .076 .087 .097 .097 .097 .097
25 28.50 31.50 34.50 38.00	\$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 \$3.7 \$2.3 70.7	026045045056056077061064066062066079063		028 044 049 070 070 070 070 079 075 071 066 069 069 069 069 072 089	.120 .066 .099 .007 .024 .032 .018 .026 .009 .037 .024 .009 .039 .038 .038 .049 .049 .049 .049 .049 .049 .049	-033 -052 -062 -065 -075 -082 -073 -082 -074 -093 -071 -084 -071 -084 -073 -084 -076 -076		-,669 -,068 -,968 -,969 -,114 -,069 -,114 -,067 -,122 -,07 -,104 -,112 -,067 -,07 -,101 -,07 -,101 -,07 -,07 -,07 -,07 -,07 -,07 -,09 -,09 -,09 -,09 -,09 -,09 -,09 -,09	0.115 .162 .162 .104 .015 .107 .075 .077 .075 .077 .075 .077 .077 .0	-0.067 -1.175 -1	0.241 .178 .591 .199 .002 .134 .034 .034 .034 .034 .034 .034 .035 .036 .036 .036 .036 .036 .039 .039 .039 .039 .039 .039 .039 .039	-0.00 -111 -111 -111 -111 -111 -111 -111	0.289 .213 .566 .2134 .132 .104 .105 .104 .105 .105 .105 .105 .105 .105 .105 .105
25 26,50 31,50 34,50 38,00 41,50	\$2.3 70.7 8.7 \$2.3 70.7 \$2.3 \$2.3 70.7 \$2.3 70	026020050050050050050051051051056		048049049049050070070070071071071070083070083070083083093	.120 .066 .099 .067 .024 .092 .032 .032 .032 .036 .006 .007 .038 .008 .009 .038 .009 .038 .009 .038 .009 .009 .009 .009 .009 .009 .009 .00	-033 -052 -052 -061 -075 -076 -073 -074 -093 -071 -084 -084 -084 -084 -084 -084 -084 -084		069 068 069 014 067 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012 057 012	0.115 .162 .062 .162 .015 .015 .015 .017 .028 .077 .029 .057 .020 .077 .020 .077 .020 .077 .077 .087 .097 .097 .097 .097 .097 .097 .097 .09	-0.67107107107107108109	0.241 .178 .571 .189 .091 .134 .094 .094 .094 .094 .095 .006 .006 .006 .007 .007 .007 .007 .007	-0.090 -1.101 -1.101 -1.101 -1.006 -1.101 -1.007 -1	0.289 .214 .254 .254 .254 .255 .266 .275 .266 .276 .276 .276 .276 .276 .276 .276
25 28.50 31.50 34.50 38.00 41.50 47.50	\$2.3 70.7 8.7 \$2.3 70.7 \$2.3 \$2.3 70.7 \$2.3 \$2.3 \$2.3 \$2.3 \$2.3 \$2.3 \$2.3 \$2.3	086095096096096097088088088088088088088088089		044049049060070060070070071091060060060070071081083 -	.120 .066 .067 .084 .07 .024 .002 .003 .004 .003 .004 .008 .008 .008 .008 .009 .009 .009 .009	-033 -052 -061 -073 -074 -08 -074 -093 -074 -093 -074 -093 -075 -076 -077 -081 -077 -081 -077 -082 -061 -077 -062 -062 -062		- 069 - 068 - 068 - 069 - 106 - 106 - 106 - 106 - 106 - 106 - 107 - 107 - 101 - 107 - 101	0.115 .162 .062 .163 .163 .015 .017 .017 .028 .077 .097 .097 .097	-0.667 -1.07 -1.07 -1.07 -1.07 -1.09 -1.05 -0.06 -1.05	0.241 .178 .971 .193 .909 .002 .134 .072 .004 .005 .006 .006 .006 .006 .006 .0091011	-0.090 -1.000 -1.001 -1	0.289 .210 .210 .210 .210 .210 .210 .210 .210
25 28.50 31.50 34.50 38.00 41.50 47.50	\$2.3 70.7 8.7 70.7 70.7 70.7 70.7 70.7 70.7	026026030036		048049049049050070070070070071071071083072083072083072083072083072083072083072083072083072083072083072083072083	.120 .066 .099 .037 .021 .025 .032 .032 .032 .033 .034 .039 .039 .038 .049 .039 .038 .049 .049 .059 .059 .059 .059 .059 .059 .059 .05	033052052054078078074093074093064072064072066076		069068069104067104077071081	0.115 .162 .062 .104 .015 .107 .077 .077 .077 .077 .077 .077 .077	-0.667 -1.07 -1.07 -1.07 -1.07 -1.09	0.241 .178 .001 .183 .193 .002 .134 .572 .004 .005 .006 .006 .006 .006 .006 .007 .007 .007	-0.090 -1.010 -1.011 -1	0.289 0.284 2.24 2.24 2.24 2.24 2.24 2.25 2.25 2.2
25 28.50 31.50 34.50 38.00 41.50 47.50 50.50	\$2.3 70.7 8.7 70.7 70.7 70.7 70.7 70.7 70.7	026026037036037037036037037037037038038038038038		048049049050070050070070089070070089071089071089070089071089071086070089		-033 -053 -052 -061 -076 -076 -076 -071 -084 -071 -084 -071 -084 -071 -084 -071 -084 -071 -084 -071 -084 -071 -071 -084 -071 -071 -071 -071 -071 -071 -071 -071		068068068068068068129014014019014019014019014019018018018018018018019099064099064099068	0.115 .162 .066 .107 .077 .079 .079 .079 .079 .079 .079 .0	-0.667 -1.07 -1.19 -1.07 -1.19 -1.07 -1.19 -1.09 -1.19	0.241 .176 .071 .183 .193 .193 .193 .193 .193 .193 .193 .19	-0.09 -1.00	0.289 2.214 2.214 2.234 2.106 2.106 2.107 2.108
25 28.50 31.50 34.50 38.00 41.50 47.50	\$2.3 70.7 8.7 \$2.3 70.7 \$2	- 006 - 006		048049070		-033 -062 -074 -071 -082 -082 -082 -082 -083 -084 -083 -084 -083 -084 -085 -085 -085 -085 -085 -085 -085		- 066 - 068 - 068 - 126 -	0.115 .162 .062 .104 .105 .107 .077 .077 .077 .077 .077 .077 .077	-0.667 -1.07 -1.07 -1.07 -1.07 -1.09	0.241 .178 .001 .183 .109 .002 .334 .072 .004 .004 .005 .005 .005 .005 .005 .005	-0.050 -1	0.289 2.214 2.234

TABLE I.- CONTINUED

(i) M,0.88.

	[ateral -						Angle of a	ttack, degr	***				
Sta- tion (in.)	dimension (% fusciage radius)	Opper	Lover	Upper surface	Lower surface	Upper surface	Lower surface	Upper	Lower	Opper	Lower	Upper surface	Lower
10	8.7 42.3 70.7	0.066 .061 .056	0.02% -C25 -020	0.050 .044 .039	0002	0.029	0.037 .037 .032	0.010 .010	0.050 .048 .039	0.005 .005 .005	0.066 .058 .044	0.002 .002 003	0.105 .092 .099
15	8.7 42.3 70.7	.031 .026 .010	005 015 015	.013 .005 002	033 040 035	003 005 005	002 008 .045	014 014	.013	029 032 027	025 .009 001	029 030 030	.055 .038 .021
20	8.7 42.3 70.7	005 010 026	034 034 065	021 028 042	056 062 064	033 033 035	034 034 035	035 035 041	022 023 033	055 056 057	009 016 036	049 050 057	.023 .005 021
න	8.7 \$2:3 70.7	026 031 038	041 044 046	038 049 059	069 069 072	053 050 050	045 045 045	048 033 033	035 036 043	059 063 067	035 037 047	057 058 068	006 010 032
28.50	8.7 \$2.3 70.7	026 033 044	041 044 048	- 043 - 051 - 062	06h 066 072	045 047 053	045 045 050	051 051 054	035 037 045	059 060 066	035 037 050	052 056 065	007 018 039
31.50	8.7 42.3 70.7	041 043 054	046 046 072	060 062 072	072 074 073	055 059 064	053 055 053	062 061 064	048 052 051	068 087 069	042 049 056	059 059 070	018 029 047
34.50	8.7 42.3 70.7	026 031 048	037 037 045	~.043 ~.054 ~.059	064 064 066	038 044 047	~.045 045 053	0\2 051 052	042 042 048	049 057 059	037 040 052	051 049 057	017 029 047
38.00	8.7 42.3 70.7	037 046 044	046 046	059 069 062	072 066	056 059 053	054 053	05k 063 052	052	-,065 -,068 -,060	050 050	054 058 057	031 047
41.50	8.7 \$2.3 70.7	036 041 046	044 046 047	054 060 065	064 066 069	053 053 054	052 054 053	053 053 055	019 051 052	058 058 063	045 056 058	047 048 057	029 039 049
44.50	8.7 \$2.3 70.7	046 048	0\1 0\4 0\8	066 066	064 064 072	055 055	- 053 - 053 - 055	058 054	051 048 055	060 061	045 052 063	 049 056	029 038 051
47.50	8.7 \$2.3 70.7	034 003 044	039 039 045	054 020 064	062 064 064	047 014 050	048 048 050	051 011 054	045 045 051	052 014 058	047 052 058	039 006 029	028 032 049
50.50	8.7 \$2.3 70.7	048 051 056	102 108	072 072 076	073 074	064 061 076	065 065	063 062 064	064 064	066 066 068	068 070	049 051 059	 051 065
53.50	8.7 12.3 70.7	-,046 -,048	041 046 048	066 072	064 066 .072	054 055	055 055 055	053 053	053 055 055	058 058	056 063 068	048	039 049 059
56.50	8.7 12.3 70.7	054 056 051	047 047 052	076 076 070	069 069 077	066 053 058	065 059 061	062 054	~.066 ~.065 ~.066	069 066 062	072 070 089	049 051 047	048 055 06°
59.50	8.7 42.3 70.7	052 057 068	037 047 051	077 077 086	055 066 077	059 059 063	046 059 063	055 055 065	063 062 0 66	068 068 069	019 070 078	038 040 049	029 053 069
Ste-	Lateral		_										
tion l	**		10		10		2	attack, des	4		16		18
tion (in.)	dimension (% fuselage radius)	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface
(in.)	dimension (% fuselage radius) 8.7 42.3 70.7	Upper surface -0.024 027 031	Lower surface 0.113 .092 .053	Upper surface -0.031 039 057	Lover surface 0.156 .125 .065	Upper surface -0.034 046 066	2 Lover	Upper surface -0.054 074 108	Lover surface 0.209 .158 .060	Upper surface -0.055 -,088 127	Lower surface 0.224 .181 .063	Upper surface -0.043 106 143	Lover
10 15	dimension (% fuselage radius) 8.7 42.3 70.7 8.7 42.3 70.7	Upper surface -0.024 027 031 050 058 062	1.0ver surface 0.113 .092 .053 064 .036 .010	Upper surface -0.031 039 057 058 069 082	Lover surface 0.156 .125 .065 .105 .069 .020	Upper surface -0.034 046 066 072 072	Lover surface 0.180 .146 .068 .130 .087 .023	Upper surface -0.05k 07k 108 100 123	Lover surface 0.209 .158 .060 .156 .098 .011	Upper surface -0.055 088 127 068 117 138	Lower surface 0.224 .181 .063 .189 .119 .011	Upper surface -0.043 106 143 060 153 145	Lower surface
10 15 20	disension (# fuelage radius) 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	Upper surface -0.024 027 031 058 062 069 072 082	Lover surface 0.113 .092 .053 064 .036 .010	Upper surface -0.031 039 057 058 069 082 068 060 100	Lover surface 0.156 .125 .065 .105 .069 .020 .058 .031 024	Upper surface -0.03\(\frac{1}{2}\)0\(\frac{1}{2}\)0\(\frac{1}{2}\)0\(\frac{1}{2}\)0\(\frac{1}{2}\)0\(\frac{1}{2}\)0\(\frac{1}{2}\)0\(\frac{1}{2}\)0\(\frac{1}{2}\)0\(\frac{1}{2}\)1\(\frac{1}\)1\(\frac{1}{2}\)1\(\frac{1}{2}\)1\(\frac{1}{2}\)1\(\frac{1}{2}\)1\(\frac{1}{2}\)1\(\frac{1}{2}\)1\(\frac{1}{2}\)1\(\frac{1}{2}\)1\(\frac{1}{2}\)1\(\frac{1}{2}\)1\(\frac{1}{2}\)1\(\frac{1}{2}\)1\(\frac{1}2\)1\(\frac{1}2\)1\(\frac{1}2\)1\(\frac{1}2\)1\(\frac{1}2\)1\(\frac{1}2\)1\(\frac{1}2\)1\(\frac{1}2\)1\(\frac{1}2\)	. Lover surface 0.180 .146 .068 .150 .087 .023 .046 020	Upper surface -0.05% 07% 108 069 100	Lover surface 0.209 .158 .060 .156	Upper surface -0.055 -,088 -,127 -,068 -,117	Lower surface 0.224 .281 .063 .189 .119 .011 .134 .070 035	Upper surface -0.043 106 143	Lover aurface 0.306 .230 .077 .251 .166 .023 .204 .120 024
tion (in.) 10 15 20	disension (\$ fruelage radius) 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7	Upper surface -0.024 027 037 059 058 069 072 082 070 090	Lover surface 0.113 .092 .053 064 .038 .010 .023 .004 027 066 016	Upper surface -0.031 -0.037 -0.057 -0.059 -0.082 -0.060 -1.000 -0.068 -0.060 -0.062 -0.062 -0.062	Lover surface 0.156 .125 .069 .020 .058 .031 024 .031	Upper surface -0.03Å 046 066 072 092 066 087 105	. Lover surface 0.180 .146 .069 .150 .087 .023 .082 .046020 .051 .015044	Upper surface -0.05%07%108069 +.100123077110111069126	Lover surface 0.209 .158 .060 .196 .098 .011 .106 .099037	Upper surface -0.055 088 127 068 117 138	Lownr surface 0.724 .181 .063 .189 .119 .011	Upper surface -0.043 106 143 060 153 145	Lover surface 0.306 .230 .077 .251 .166 .023 .204 .120 024 .159 .002 054
tiom (in.) 10 15 20 25 28.50	dimension (f. fuellage radius) 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 70.7 70.7 70.7	Upper eurface -0.024 -0.021 -0.031 -0.050 -0.058 -0.069 -0.072 -0.000 -0.000 -0.000 -0.000	Lower surface 0.113 .092 .033064 .036 .010 .003027006016016019008021	Upper surface -0.031 -0.097 -0.058 -0.062 -0.060 -0.062 -0.062 -0.062 -0.062 -0.062 -0.062 -0.062 -0.063	Lover Burface 0.156 125 .065 .020 .020 .031 .024 .031 .004 .040 .023 0	Upper surface -0.03k -0.06066072066072066087106087105087094087	2 Lover surface 0.180 .146 .068 .136 .067 .023 .082 .046020 .051 .015044046	Upper surface -0.05h -0.07k108009123017110111009125017116126064121	Lover surface 0.209 .158 .060 .158 .096 .011 .106 .097 .017 .064 .079 .065 .013	Upper surface -0.055088127068117138076117143	Lower surface 0.22\(\) .181 .063 .189 .119 .011 .134 .070 .035 .099 .037 .004 .088 .027 .068	Upper surface -0.0k3 106 143 060 153 145 068 152 146	1.0ver surface 0.306 -230 -077 -251 -166 -023 -204 -120 -024 -159 -062 -094 -143 -067
tiom (in.) 10 15 20 25 28.50 31.50	dimension (% fuselsge radius) 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	Upper surface -0.024 -0.027 -0.031 -0.059 -0.062 -0.062 -0.070	Lower Lowe	Upper surface -0.031 -0.037 -0.057 -0.052 -0.062 -0.062 -0.063	Lower surface 0.156 .127 .005 .107 .009 .000 .001 .001 .001 .004 .004 .004 .004	Upper surface -0.034 -046 -066 -076 -0762 -086 -087 -106 -078 -082 -082 -082	Lover surface 0.180 1146 .068 .130 .087 .023 .062 .046 -020 .051 .015 -046 .010 -047 .015 -056	Upper surface -0.054 -0.074 -1.08 -1.09 -1.103 -1.07 -1.111 -0.69 -1.115 -1.16 -0.64 -1.110 -1.110 -1.110 -1.110 -1.110 -1.110 -1.110 -1.110	Lover surface 0.209 1.156 0.98 0.01 1.106 0.07 0.024 0.013 0.065 0.013 0.044 0.002 0.002	Upper surface -0.055 -0.055 -127 -0.06 -117 -138 -0.06 -117 -138 -0.01 -0.11 -138 -0.05 -136 -136 -136 -136 -136 -136 -136 -137 -138	Lownr surface 0.724	Upper surface -0.043106143006143008153068156146064155146063150150151	Lover auricase 0.306 .206 .207 .201 .204 .120 .204 .129 .002 .143 .074 .075 .207 .207 .207 .208
tion (in.) 10 15 20 25 26.50 31.50	dimension (f. fuelsage radius) 8.73 8.73 8.73 8.73 8.73 8.70.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8	Upper eurfece -0.027 -0.027 -0.050 -0.059 -0.052 -0.050 -0	Lover surface	Upper surface -0.031 -0.99 -0.07 -0.08 -0.08 -0.08 -0.08 -0.00 -0.08 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00 -0.00	Lower surface 0.156 .127 .067 .099 .020 .058 .031 .024 .014 .024 .024 .024 .024 .024 .024 .024 .02	Upper surface -0.034 -0.06 -0.06 -0.06 -0.07 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09	2 Lover surface 0.180 1.146 0.082 1.307 0.083 0.082 0.046080 0.015004015004015005005005005	Upper Surface -0.054 -0.074 -0.074 -0.074 -1.103 -1.101 -1	Lover surface 0.209 .158 .060 .158 .098 .011 .106 .097 .024079 .065 .013069	Upper surface -0.058 -1.27 -0.08 -1.17 -1.18 -0.16 -0.17 -1.18 -1.18 -1.18 -1.19	Lownr surface 0.724 1.861 0.63 1.89 1.19 0.01 1.37 0.70 0.935 0.97 0.07 0.088 0.027 0.068 0.068	Upper surface -0.043 -106 -143 -0.06 -123 -115 -0.06 -0.152 -145 -0.06 -0.150 -	Lover aurisce 0.306 -230 -077 -251 -166 -023 -004 -024 -052 -054 -054 -066 -086
tiom (in.) 10 15 20 25 28.50 31.50	dimension (% rues) and (% rues)	Upper eur face	Lower surface 0.113 1.092 1.092 1.093 1.094 1.09	Upper eurification -0.019	Lower Eurface	Upper surface -0.034 -0.06 -0.06 -0.06 -0.072 -0.06 -0.06 -0.06 -0.05 -0.06 -0.05 -0.07 -0.09 -0.07 -0.09 -0.07 -0.08 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09	2 Lover surface 0.180 (1166 (168 (168 (168 (168 (168 (168 (16	Upper surface -0.074 -108 -0.074 -109 -120 -121 -077 -1110 -089 -126 -081 -081 -081 -081 -081 -081 -081 -081	Lover surface 0.209 1.36 0.60 1.36 0.001 1.06 0.07 0.07 0.07 0.07 0.08 0.01 0.04 0.03 0.04 0.04 0.05 0.07 0.07 0.07 0.08 0.04 0.08 0.09 0.08 0.09 0.09 0.09 0.09 0.09	Upper surface -0.099 -0.088 -127 -0.08 -117 -0.06 -117 -0.118 -0.06 -117 -118 -0.016 -119 -0.018 -119 -0.01	Lower surface of the control of the	Upper surface -0.043 -1046 -1143 -1056 -1143 -1056 -1152 -1145 -1157 -15	Lover aurisas (1.20
tion (in.) 10 15 20 25 28.50 31.50 38.50 41.50	dimension (f. fues) age (f. fu	Upper surface -0.027 -0.031 -0.058 -0.059 -0.072 -0.050 -0.050 -0.071 -0.050 -0.071 -0.050 -0.071 -0.050 -0.071 -0.050 -0.071 -0.050 -0.071 -0.050 -0.071 -0.050 -0.071 -0.050 -0.071 -0.050 -0.071 -0.050 -0.071 -0.050 -0.050 -0.050 -0.050 -0.050 -0.050 -0.050 -0.050 -0.050 -0.050	Lower surface	Upper surface -0.039 -0.059 -0.059 -0.069	Lower eurface	0pper surface -0.034 -0.046 -0.072 -0.072 -0.066 -0.073 -0.081 -0.081 -0.091 -0.092 -0.092 -0.092 -0.093 -0	2 Lover surface 0.186 .146 .068 .146 .068 .140 .070 .071 .071 .071 .071 .071 .071 .07	Upper surface -0.0540.740.780.791.101.110.691.120.641.101.120.641.101.120.641.10	Lover eur face 0.209 .159 .000 .139 .001 .106 .001 .002 .003 .003 .004 .005 .005 .006 .006 .006 .007 .007 .007 .007 .007	Upper surface of the control of the	Lower surface of the control of the	Upper surface -0.0kl -1.06 -1.143 -0.06 -1.153 -1.15 -0.08 -1.15	Lover aurisco 0.366 0.320 0.307 0.971 0.971 0.971 0.971 0.971 0.972 0.972 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973
tion (in.) 10 15 20 25 28.50 31.50 34.50 44.50	dimension (% fuesinger radius)	Upper eurise Control	Lover	Opper euritaria (1997) - 0.031 - 0.031 - 0.039 - 0.056 - 0.066 - 0.060	Lower eurasses Lowe	0pper eur eur eur eur eur eur eur eur eur e	2 Lower surface 0.180 1.160 1.150 1.	Upper surface -0.074 -1009 -1009 -1009 -1009 -1009 -1009 -1115 -1116 -1116 -1119	Lover surface 0.209 1.156 0.98 1.156 0.98 1.156 0.99 1.156 0.99 1.067 0.97 1.067 0.97 1.07 0.97 1.07 0.97 1.07 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0	Upper surface of the control of the	Lowr eur recrease (1.24 to 1.24 to 1.2	Upper surface of the control of the	Lover surface 0.360 0.360 0.300 0.307 0.971 0.901 0.902 0.902 0.902 0.902 0.902 0.902 0.902 0.902 0.902 0.902 0.902 0.902 0.903
tion (in.) 10 15 20 25 28.50 31.50 38.50 41.50	dimension (% rues) and (% rues)	Upper	Lower		Lever surface of the control of the	0.094 - 0.054 - 0.055	2 Lover surface 0.186	Opport Surface -0.071 -100	Lover eur face 0.209 .159 .060 .159 .001 .106 .001 .001 .002 .003 .003 .004 .005 .005 .004 .006 .006 .006 .007 .007 .007 .007 .007	Upper 107 107 107 107 107 107 107 107 107 107	Lown Color Lown Lown Color Lown	Upper eurrent	Lover aurisco 0.366 0.320 0.307 0.971 0.971 0.971 0.971 0.971 0.972 0.972 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973
ttom 10 10 25 20 20 27 27 28 28 29 29 28 29 29 28 29 29 29 29 29 29 29 29 29 29 29 29 29	dimension (% fuesilage radius) (% fuesilage radius) 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 8.7 8.7 8.7 8.7 8.7 8.	Dpper	Lorent	Great Grea	Levere europe (1997) (1	Dispersion Dis	2 Lower surface Lower surf	Upper surfece	Lower surface 0.2000 1.324 0.2000 1.324 0.000 1.324 0.001 0.	Upper surface of the control of the	Surface Control Cont	Upper	Lever Leve
tion (in.) 10 15 20 28.50 31.50 34.50 41.50 47.50	dimension (Dpper	- 0.00 -	Upper	Lower	Dyst	2 Lover surface	Open surface	Loser sur face 0.200	Upper	Low	Upper Uppe	Lover Love
tton 10 10 10 10 10 10 10 10 10 10 10 10 10	dimension (f. fuesiage radius) (f. fuesiage radius) 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.	Dyper	Lorent	Upper worker of the control of the c	Levere europe (1997) (1	Diper	2 Lower surface Lower surf	Opportunit Opp	Lower sur fice 0.000 co. 0	Upper Uppe	Surface Control Cont	Upper	Lever Leve

TABLE I.- CONTINUED

(j) M,0.90.

1	Lateral dimension	L		,		,—		strack, de	proses	·			
fin.)	dimension (% funcings radius)	Upper	Lover	Upper aurface	Lower	Upper surface	Lower	Upper surface	Lover	Upper	Lover	Opper	Lower
10	8.7 42.3 70.7	0.068 .068 .058	0.020 .020 .018	0.076 .071	0.031 .031 .031	0.030 .025 .022	0.023 .023 .020	0.030 .030 .030	0.052 .050 .040	0.030 .031 .031	0.094 .088 .070	0.00A .00A .002	0.105 .087 .063
15	8.7 42.3 70.7	.030 .028 .013	-,012 -,020 -,016	.039 .032 .029	001 006 003	010 0 012	011 020 020	008 010 005	.012 .003 .003	093 093 093	.049 .039 .028	033 033 034	.055 .035 .017
20	8.7 \$2.3 70.7	-004 -012 -024	037 037 042	.004	026 029 030	038 039 042	040 042 049	030 032 035	020 021 026	030 030 031	.019 .009 008	050 054 057	.017 .005 017
25	8.7 42.3 70.7	022 032 042	047 049 052	011 021 029	036 038 041	051 061 061	060 060 061	045 050 050	032 035 040	036 041 043	00A 019 021	0% 0% 0%	005 015 035
26.50	8.7 42.3 70.7	- 024 - 034 - 044	045 054	016 021 031	036 036 041	-056 -060 -063	059 060 061	048 050 052	035 038 040	-036 -037 -043	006 011 021	055 057 065	013 015 037
31.50	8.7 42.3 70.7	0A2 0A2 057	050 052 057	031 032 041	041 041 041	-,069 -,069 -,071	066 069 069	058 058 059	042 045 049	~,041 -,041 -,049	019 026 031	060 063 075	025 035 045
34.50	8.7 42.3 70.7	027 034 044	044 044 052	013 026 031	033 033 038	049 059 061	061 061 063	038 047 048	040 040 042	028 031 036	011 019 026	048 063	015 025 044
38.00	8.7 42.3 70.7	042 052 044	025	031 041 032	-,0A1 -,039	066 073 062	066 063	055 060 050	050 045	039 042 033	029 029	054 057 056	035
41.50	8.7 \$2.3 70.7	037 043 052	047 050 052	029 031 038	038 040 040	010 010 066	063 064 064	050 050 052	048 049 049	031 031 039	021 030 031	045 050 058	027 042 048
14.50	8.7 k2.3 70.7	052	044 044 052	040	034 033 041	 071 070	063 063 071	055 052	048 049 050	-, 038 -, 040	021 029 036	051	0;3 0;5 0;6
47.50	8.7 42.3 70.7	034 002 047	012 012 050	024 .010 034	032 032 035	059 019 061	061 060 061	045 005 048	042 042 048	029 .088 032	020 023 032	055 055	0.9 0.6 001
50.50	8.7 42.3 70.7	052 055 064	055 062	043 045 051	046 051	076 074 079	074	062 061 062	060 060	042 042 046	041 049	001 004 065	056 070
53.50	8.7 \$2.3 70.7	-052 -052	04A 050 052	041 041	.036 039 043	069 069	064 070 071	052 051	051 053 054	034 038	031 036 043	_,049 055	044 047 067
56.50	8.7 \$2.3 70.7	062 062 075	046 048 056	051 051 043	043 043 048	079 079 072	081 073 075	062 060 053	067 060 066	040 040 031	041 041 045	047 053 050	051 051 070
59.50	8.7 42.3 70.7	056 056 066	026 035 055	052 052 053	018 040 045	073 073 078	053 073 075	059 059 062	060 063	030 031 032	01k 041 049	041 043 051	~.030 051 071
	Lateral	<u> </u>	a		10		Angle of	attack, deg	roes		6		
Sta- tion (in.)	Lateral disension (\$ fuscings radius)	Upper	Lower	Upper surface	Lower	Upper eurfece	Lover	Upper	Lower	Upper	lowr		·
10	8.7 \$2.3 70.7	-0.018	0.124	-0,025						surface	surface	Upper surface	Lower
15		-,018	.103	-0.025 033 045	0.156 .127 .070	-0.0% 060 065	0.183 .144 .062		0.225	-0.061 096	0.251	-O OAS	surface
		018 028 028 047 049	.064 .062 .052 .022	033 045 052 063	.127 .070	-0.044 060 085 070 088 110	.114 .062 .132 .081	-0.037 058 087 055	0.225 .173 .075	-0.061 096 133 093 128	0.251 .185 .059 .190	-0.045 -109 -139 067	0.297 .222 .071
20	8.7 42.3 70.7 8.7 42.3	,047 ,049 ,058	.082 .052 .022	052 063 075	.127 .070 .105 .070 .023	060 065 070 088 110	.114 .062 .132 .083 .013	-0.037 058 087 055 055 107	0.225 .173 .075	-0.061 096 133 093 128 146	0.251 .165 .059 .190 .119 .008	-0.045 -109 -139 -141 -148	0.297 .222 .071 .234 .153 .220
25	8.7 \$2.3 70.7		.082	033 045 052 063	.127 .070	060 065 070 066 110 078 095 122	.144 .062 .132 .083 .013 .082 .041 030	-0.037 058 087 055	0.225 .173 .075 .165 .107 .025	-0,061 096 133 128 146 063 152	0.251 .185 .059 .190 .119 .006	-0,045 -109 -139 -,067 -,141 -,148 -,074 -,149 -,149	0.297 .222 .071 .234 .153 .220 .181 .181
	8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7	-047 -049 -058 -060 -068 -078 -078 -076 -076 -079 -069 -069	.082 .052 .022 .034 .021 .026 .007 .068 .038	033 045 052 063 075 065 075 084 064 087 088 085 085 085 085	.127 .070 .105 .070 .023 .043 .065 018 .032 .006 036	060 085 070 068 110 078 095 122 070 122 066 115	.144 .062 .132 .083 .013 .082 .041 .030 .013 052 .041 .006 060	-0.097 -0.097 -0.097 -0.095 -1.007 -0.095 -1.107 -0.095 -1.117 -1.103 -1.115 -0.092 -1.008	0.225 .173 .075 .165 .107 .025 .115 .066 020	-0.061 -0.096 113 093 146 063 142 152 078 147 147	0.251 .185 .059 .190 .119 .008	-0.045 -1.09 -1.19 -1.141 -1.148 -0.74 -1.149 -1.149 -0.071 -1.157 -1.157 -1.157 -1.157 -1.157 -1.157 -1.157	0.297 .222 .071 .153 .220 .181 .109 029
25	8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7	- 047 - 049 - 058 - 060 - 068 - 078 - 078 - 079 - 069 - 069 - 069 - 066 - 066 - 066 - 066	.082 .052 .022 .034 .021 026 .007 068 038	03) 045 065 075 085 085 085 085 085 085 085 085 085 085 085 085 085	.127 .070 .105 .070 .023 .043 .065 018	060 085 070 086 110 078 078 122 070 102 122	.144 .062 .132 .083 .013 .082 .041 030	-0.037 058 067 067 063 107 063 117 057 103 115	0.225 .173 .075 .165 .107 .025	-0.061 -0.096 113 093 146 063 142 152 078 147 147	0.251 .165 .059 .190 .119 .008 .110 .077 041 .100 .003 .003	-0.045 -1.09 -1.139 067 141 149 149 149 149 157 157 157	0.297 .222 .071 .234 .153 .220 .181 .109 029 .141 .071 .061
25 28.50	8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7	- 647 - 658 - 659 - 659	.082 .052 .022 .034 .021 .026 .007 068 038 038 003 045	033 045 052 063 075 095 095	.127 .070 .070 .070 .023 .043 .065 .018 .032 .006 036 .006 036	060 060 060 070 068 070 072 070 102 102 102 072 098 113 072 098 110	.144 .062 .083 .013 .082 .041 .030 .049 .013 .006 .006 .006	-0.0)7 -0.097 -0.097 -0.095 -0.095 -0.095 -0.097 -1.03 -1.03 -1.05 -0.097 -1.060 -1.02 -0.097 -1.097 -0.097 -0.0997 -0.0997 -0.0997 -0.0999 -0.0999 -0.0999	0.225 .173 .075 .165 .107 .025 .115 .066 .020 .035 .045 .045 .025 .025 .025 .025	-0.061 -0.061 -0.093 -126 -136 -142 -152 -0.078 -1147 -1144 -1144 -1152 -0.063 -1152	0.251 .105 .059 .119 .008 .110 .009 .011 .100 .041 .068 .069 .013 .076	eurface -0.049109139069141148744149159079164189099189099189199189	0.297 .222 .071 .234 .151 .220 .181 .109 029 .141 .071 061
25 26.50 31.50	8.7 12.3 70.7 8.7 12.3 70.7 12.3 70.7 12.3 70.7 12.3 70.7 12.3 70.7 12.3 70.7 12.3 70.7 12.3 70.7 12.3 70.7	0.50 	.082 .092 .022 .023 .024 .026 .026 .038 .038 .031 .045 .045 .028 .028 .028 .028 .028 .039	013022063063075064077097098064077099064077099064077077	.127 .070 .070 .021 .065 .018 .006 .006 .006 .004 .004 .004 .005 .004 .004 .005 .006 .006 .006 .006 .006 .006 .006	060 060 060 070 070 070 070 070 122 069 115 078 115 078 119 078 119 078 119 078 119 078 119 078 119 078	.114 .062 .083 .013 .082 .041 030 .043 052 .041 066 060 .021 073	-0.917 -0.967 -0.967 -0.967 -0.965 -0.965 -0.965 -0.97 -1.117 -1.115 -0.97 -1.08 -0.997 -0.997 -0.995 -0.99	0.225 .173 .070 .165 .107 .005 .005 .005 .005 .005 .005 .005 .0	-0.061 -093 -133 -093 -126 -083 -146 -083 -147 -078 -147 -078 -152 -154 -154 -154 -155 -157 -076 -114 -114 -115 -061 -115 -076 -115 -115 -115	0.251 .190 .190 .190 .008 .140 .071 .041 .041 .068 .069 .076 .069 .069 .069 .069		0.297 .222 .071 .23k .151 .220 .181 .109 029 .141 .071 061 .101 .061 .061
25 26.50 31.50 34.50 38.00	8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 \$2.3 70.7 \$2.3 70.7 \$2.3 70.7 \$2.3 70.7	- 647 - 658 - 659 - 659	.082 .092 .014 .021 .026 .007 .006 .007 .013 .001 .009 .009 .009 .009 .009 .009 .009	013 042 063 075 075 076 075 075 076 075 075 076 076 076 076 076 076	.127 .070 .070 .023 .043 .065 .066 .066 .006 .006 .006 .006 .006	060 060 060 070 068 070 072 070 102 102 102 072 098 113 072 098 110	.114 .062 .082 .083 .081 .081 .081 .081 .081 .081 .081 .081	-0.0)7 -0.097 -0.097 -0.095 -0.095 -0.095 -0.097 -1.03 -1.03 -1.05 -0.097 -1.060 -1.02 -0.097 -1.097 -0.097 -0.0997 -0.0997 -0.0997 -0.0999 -0.0999 -0.0999	0.225 .173 .070 .165 .107 .105 .066 .000 .071 .075 .085 .095 .095 .095 .095 .095 .095 .095 .09	-0.061 -096 -113 -199 -126 -189 -180 -182 -192 -187 -187 -187 -063 -119 -181 -181 -181 -181 -181 -181 -181	0.251 .195 .059 .1193 .008 .1193 .008 .1193 .008 .009 .001 .009 .001 .009 .001 .009 .009	eurface -0.049109139069141148744149159079164189099189099189199189	0.297 .234 .234 .231 .230 .181 .102 .029 .029 .029 .061 .061 .061 .069 .069
25 26.50 31.50 34.50 38.00 41.50	8.7 \$2.3 70.7 8.7 \$70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8	- 647 - 659 - 668 - 651 - 658 - 658	.082 .092 .093 .093 .091 .096 .096 .098 .093 .093 .093 .093 .093 .093 .093 .093	-013 -045 -075 -075 -075 -075 -075 -077 -075 -075	.127 .070 .093 .043 .065 .018 .066 .016 .004 .004 .005 .006 .016 .004 .005 .008 .008 .008 .008 .009 .008 .009 .008 .009 .009	060 060 060 060 110 078 079 122 070 122 056 056 119 079 099	.114 .062 .125 .081 .013 .082 .041 .013 .089 .013 .092 .041 .006 .011 .006 .021 .014 .014 .021 .021 .021 .024 .039 .039 .039 .049 .059 .069 .069 .069 .069 .069 .069 .069 .06	-0.0171 -0.057	0.225 .173 .070 .165 .066 .066 .066 .077 .015 .077 .045 .070 .070 .070 .070 .070 .070 .070 .07	-0.061 -0	0.251 .195 .059 .190 .008 .110 .008 .100 .001 .001 .001 .00	eurface -0.005 -1.09 -1.09 -1.09 -1.067 -1.143 -1.149 -1.157 -1.157 -1.157 -1.164 -1.157 -1.164 -1.164 -1.165 -1.165 -1.167 -1.1	0.297 .272 .273 .273 .273 .273 .273 .273 .27
25 26.50 31.50 33.50 38.00 41.50 47.50	8.7 12:3 70.7 8.7 10:3 10:7 10	- 667 - 679 - 698 - 698	.082 .092 .014 .021 .026 .007 .006 .007 .013 .001 .009 .009 .009 .009 .009 .009 .009	-013 -042 -052 -057 -057 -057 -057 -057 -057 -057 -053 -053 -057 -053 -053 -053 -053 -053 -053 -053 -053	.127 .070 .070 .070 .063 .063 .063 .003 .004 .005 .006 .006 .006 .006 .006 .006 .006	060060060070	.114 .062 .082 .083 .081 .091 .081 .081 .091 .081 .091 .091 .091 .091 .091 .091 .091 .09	-0.017 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057 -0.057	0.225 .173 .075 .107 .095 .107 .005 .007 .015 .005 .005 .005 .005 .005 .005 .005	-0.601 -096 -133 -091 -123 -132 -132 -132 -134 -133 -133 -133 -133 -133 -133 -133	0.251 .105 .005 .119 .006 .119 .006 .140 .071 .001 .003 .003 .003 .009 .009 .009 .009 .009		0.297 .272 .071 .234 .151 .151 .109 .061 .061 .061 .061 .061 .061 .067 .067 .067
25 26.50 31.50 34.50 38.00 41.50 47.50	8.7 12.3 70.7 12.7 170.7 18.7 170.7 18.7 170.7 18.7 18.7 18.7 18.7 18.7 18.7 18.7 18	- 047 - 047 - 052 - 052 - 056 - 057 - 057 - 059 - 059	.060 .002 .003 .004 .006 .006 .008 .008 .008 .008 .008 .009 .008 .009 .009	-013 -045 -075 -075 -075 -075 -075 -077 -075 -075	.127 .070 .070 .021 .002 .003 .004 .005 .006 .006 .006 .006 .006 .006 .006	060 060 060 060 110 078 079 122 070 122 056 056 119 079 099	.114 .062 .083 .083 .083 .083 .083 .083 .083 .083	-0.017 -0.007 -0	0.223 .171 .175 .165 .165 .166 .060 .077 .077 .077 .077 .077 .077 .0	-0.061 -0	0.251 .150 .259 .180 .260 .180 .261 .261 .261 .261 .261 .261 .261 .261		0.297 (57) (57) (57) (57) (57) (57) (57) (57
25 26.50 31.50 33.50 38.00 41.50 47.50 50.50	8.7 12.3 70.7 12.3 70.7 70.7 12.3 70.7 12.3 70.7 12.3 70.7 12.3 70.7 12.3 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70	-047 -047 -050 -050 -056 -056 -056 -056 -056 -058 -058 -058 -058 -058 -058 -058 -058		-013 -041 -051 -051 -051 -051 -051 -051 -051 -05		060060070	.114 .062 .013 .083 .083 .083 .083 .083 .083 .083 .08	-0.01 -0.02	0.225 .171 .071 .075 .107 .085 .071 .085 .071 .085 .085 .085 .085 .085 .085 .085 .085	-0.06 -0.19	0.251 .109 .209 .1190 .100 .201 .100 .201 .100 .201 .201 .20		1.00 (
25 26.50 31.50 34.50 38.00 41.50 47.50	8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 \$2.3	- 047 - 047 - 058 - 058		-013 -040 -062 -063 -070 -070 -070 -070 -070 -070 -070 -07		060060070	.114 .062 .083 .083 .083 .083 .083 .083 .083 .083	-0.070 -0	0.227107	-0.06 -0.06	0. 501 1.05 1.05 1.05 1.06	eurica: -0.04) -119 -109 -119 -114 -114 -1149 -1149 -117 -117 -117 -117 -117 -117 -117 -11	

TABLE I.- CONTINUED

(k) M,0.92.

	Lateral				Ane	le of atta	ik, docrees						
Sta- Lion	dimension (% fuscings radius)	Upper surface	Lover surface	Upper surface	Lover	Upper	Lover .	Upper	Lover	Upper surface	Lover	Upper .	Lover surface
10	8.7 12.1 70.7	0.085 018 069	0.017 .017 .017	0.063	0,028 .06)	0.043	0.039	-0.049 049 049	0.068 .066 .060	0.029 .030 .030	0.0% .087 .075	0.019 .019 .015	0.128 .114 .085
15	8.7 12.3 70.7	.044 .036 .025	01/, 024 020	.024 .021 .017	010 013 01/	.004	008 006	.010 .098 .010	.029 .019	006 008 006	.049 860. 850.	016 017 017	.080 .060 .041
20	8.7	.005	042 042	010 011 021	019 010	026 027 013	013 014 016	019 019 021	.005 010 018	030 030 032	.014 .00% 008	032 035 045	.041 023 .002
25	70.7 8.7 \$2.3 70.7	015 027	0\5 0\1 0\0 0\A	025 025	04 / 04 / 050	017 017 017	017 017 018	02') 037 037	021 021 027	039 042 038	008	03+ 047 042	.017 .004 018
28.50	8.7	025 025	051 053	019 019 042	048 050 051	047 047 042	047 047 052	810 810 040	024 024 031	-,042 -,042	011 016 027	042 045	.008 .002 ,018
31.50	70.7 8.7 42.5	039 036 039	057 054 054 056	048 049 07,8	038 038 035	055 056 057	075	047 047 047	-,0,1 -,0,1 -,0,1 -,0,1	049 049 050	030 031	045 045 056	0 015 027
14.50	8.7 42.3	052	045 044	02"/ 040 043	048 045	037 047 047	048 047 047	024 031 031	028 028 02°,	029 037 040	117 020 030	-,006 -,035 -,045	.002 008 02+
y8.co	70.7 8.7 42.3 70.7	05') 052 044	042 053 052	047 078 040	05%	0% 0% 0%	0%	.047 047 034	0% 031	045 047 040	030 031	027 045 042	018 027
41.50	8.7	034 041 046	046 046	040 041 040	050 051 051	0A1 050 055	055 0%	034 036 019	034 034 037	038 038 042	026 02 810	02) 032 045	010 02, 015
14.50	70.7 8.7 42.1	DA6	052 044 047	0,2 0,2 0,2	0,0	0.7	05 05	-,041 -,041	034	200	030	.002 037 045	01÷ 018 0;7
17.50	8.7 82.1	053 034 044	0kg 0kg 0kg 0k/,	040 001 045	07,8 04.9 40 840	05/ 04/ 048 048	048 048 048	010	0.0 0.0 0.1	012	022 028 015	02% 014 037	010 016 05
50.50	8.7 42.3 70.7	044 056 054	077	045		0// 0//	07	O. /	04.	046 045	00	0;f 0;f 0;f	0:7
• 51.50	8.7	045	-,045 -,045 -,055	-,0,0	-,010 -,070 -,071	05	077 077 070	04·)	04) 044 046	040	035 042 048	047	027
56.50	8.7 42.3	-,075 -,074 -,074	057 054 054 061	055 067 061 046	0// 0// 0//	0/7 0/-1 0/-1	0/4	057 047	-,049	042 046 046	OL.,	011 017	047 047 056
59.50	8.7 12.3 70.7	060 062 063 075	-,0/1 -,027 -,0/2 -,0//	0% 0%7 077	0// 0// 0//	0% 0% 0%	0(-) 0;4 0;8 0;4	0-0 0-6 0-7 0-7	07,0 01 / 048 07,0	039 049 042 049	-,058 -,010 -,010 -,010 -,010	031 037 036	018 045 078
Sta-	[aterm] dimension (% fuscinge			,	Ar _e	te of atta	ck, degrees		14		16		.8
tior (in.)	radius)	Upper garface	Lower surface	Upper eurface	Lover Surface	Upper	lower- purface	Upper gurface	Lover ourfece	Upper gurface -0.04"	Lower surface	Upper surface -0.015	Lover
10	8.7 42.4 70.7	-0.002 009	0.132 .113 .079	-0.025 110 140	0.140 .130 .071	-0.029 04.2 200,	0.200 .157 .082	-0.022 047 081	0.24 .1 # .0 #	08 · 126	0.270 .201 .074	080	0.334 .254 .104
15	8.7 43.3 70.7	034 030 044	.081 .043 .032	052 052 077	.107 .071 .024	072 072 073	.1-3 .0 % .031	045 075 115	.1 *0 .1 0 .041	060 11) 130	.210 .135 .004	034 112 118	.17- .1-1 .053
20	8.7 42.4 70.7	056 068	.042 .003 004	0-7 07- 07	0ri1 .015 018	-,011 -,088 -,111	.0 /3 .054 017	048 08; 108	.1 % .1 % .042	070 111 110	.152 .0 4 050	055 127 123	.218 .143 004
2)	8.7 42.4 70.7	052 066 075	.01 5 .001 028	0°7 0°5 0°7	.004 .004 042	-,042 -,041 -,106	.110 .00% 042	048 088 110	140 .07/1 008	067 042 139	.115 .05 071	042 051 125	.1/) .10) 0jj
28.50	8.7 \$2.3 70.7	055 061 075	.011 006 034	0% 079 0%	.012 0 047	098 009	.053 .024 046	04r. 0 rs 10s	.04 .051 045	05 j 137 137	.105 ,044 0(f)	-,642 130 114	.11.2 036
31.50	8.7 k2.3 70.7	056 061 075	007 027 041	077 077	.00/ 018 057	0% 088 0 6	-,00j -,00j	017 0;8 0;5	.072 .031 054	075 148 131	.065 .024 081	0+3 1+5 113	075
34.50	8.7 42.3 70.7	036 053 064	005 017 041	047 069 085	.007 018 057	034 074 085	.014 -,003 -,062	025 03 086	.114 .023 055	050 137 072	.080 .024 082	0;2 1e;) -,102	.140 .073 073
38.00	8.7 42.3 70.7	048 058 058	026 044	055 077 079	062	044 013 083	014	037 114 084	066	064 159 116	.007	-,051 -,149 -,004	.061 068
41.50	8.7 42.3 70.7	-,Ch1 -,Ch1 -,Ch4	017 031 051	047 069 079	008 033 067	062 085 084	.016 020 073	032 099 086	.051 .003 071	06) 140 120	002 101	051 131 102	.116 .045 071
14.50	8.7 \$2.3 70.7	051 061	019 026 056	063 077	010 031 075	085	.007 017 082	110 005	.049 .003 077	-,150 -,116 -,06j	.003 110	 132 100	.110 .041 -,081
17.50	8.7 \$2.3 70.7	026 002 056	017 028 053	026 002 056	017 028 053	034 034 075	.017 018 082	028 046 076	.046 .002 078	075	003 110	055	.042 083
50.50	8.7 \$2.3 70.7	046 017 066	049 073	046 . 017 066	049 073	-,046 -,101 -,084	043	048 110 086	019 095	-,089 -,140 -,121	030 129	ce4 122 100	.158 .015 102
53.50	8.7	051	031 046 066	051 056	031 046 066	0;2	005 042 093	095	023 018 094	131 109	029 132	056 082	.015
	N2.3 70.7	056						_					
56.50		056 056 052 040	066 051 061 080 024 054 081	046 056 065	0k2 061 09k 031 061	054 095 057 036 075 060	010 038 088 009 039	-,058 -,058 -,063 -,050 -,087	.008 -,030 099	091 133 040	.020 022 117	064 109 073	,064 .008 -,101

TABLE I.- CONCLUDED

(1) M,0.94.

•	Lateral	<u> </u>			2		Argle of at		2		١.	T	6
Sta- tion (in.)	discusion (f fuselage radius)	Upper surface	Lover surface	Upper surface	Lover	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lowri
10	8.7	0.091	0.035 .035 .035	0.080	-0.038	===	===	0.047 .045 .045	0.081	0.045 .045 .045	0.109	0.043	0.13
15	70.7 8.7 42.3	.015	001	.070	036 003 001			.007	035 026 024	.oo8	.064 .049	.010	.10
20	42.3 70.7 8.7	.043	008 003 032	.030 .003 003 013	029 027 031			.007 .007 024 027	024 002 003 012	022 022 024	.049 .040 .026 .016	.010 .008 017 018	.05
	8.7 42.3 70.7	011 012	032 033 041 041	016	031 045 051	===		030 039 041	~.022	031	001	013	.03 .01 02
28.50	8.7 12.3 70.7	022 032	042	029 034	045			043	022	036	003 014	025 .029 .037	02
	8.7 42.3 70.7	022 027 033	041 041 049	075 076 035	034 034 046	===	===	041 041 043	022 022 032	033 033 041	007 007 019	025 029 037	01 00
31.50	8.7 42.3 70.7	039 040 046	046 046 052	038 040 070	045 048 047	===	===	051 051 051	032 035 035	040 040 046	012 022 027	029 032 038	00 00 01
34.50	8.7 42.3 73.7	020 030 033	040 039 041	017 030 035	043 040	===	===	032 038 039	029 029 035	029 026 031	012 022	009 018 027	01 00 00
38.00	8.7 42.3 70.7	034 049 039	049	050 050 050	050 034	===	===	0% 052 039	039 036	036 041 031	02? 023	016 032 026	00 01
41.50	5.7 42.3 70.7	032 036 046	046 046 046	015 038 045	045 045 045	1 ::::	===	041 041 043	036 040 040	029 029 036	022 027 029	018 020 029	00 01
44.50	9.7 42.3	044	042	045 045	044 043 046	===		046 046	038 038	033	022	075	00
۲7.50	70.7 8.7 42.3	049 032 040	051 039 039 041	045 034 003 035	046 035 040	===	===	046 033 009 039	013 032 033 036	036 024 .017 030	033 014 027	029 010 029 023	00 00 00
20.50	70.1 8.7 42.3	052 055	041 053 058	055	054			052 051	036 053 055	039 039 046	041	027	02
53.50	0.7 42.3	043	058 043 048	057	057			053 043	055 041 046 049	046	048	037	01 02 03
	70.7	049	051				052 052	043	049 045 044	032	032 039 033	024	03
56.50	8.1	060	004					052				027	00
56.50	8.1 42.3 10.7 5.1 42.3 70.7	060 060 0 001 010	004 0 020 039 046	032 032 032	-,03r -,03z -,032 -,015 -,026 -,031	017 014 014 015	032 032 015 039 012	031 035 035 039	-,045 -,045 -,043 -,038 -,043	039 029 023 039	011 014 014 014 041	024 020 021 030	05 04 09 03 049
	42.3 10.7. 9.1 42.3 70.7	-,060 0 0 -,001	004	052	015 0% 031	017	032 015 079 012 Angle of at	035 035	045 073 038 043	025 022 023 032		024 020 021 030	
59.50	ic. 7. 9. f ic. 3 70. 7 Lateral Attention (\$ fuselage ratios)	-,060 0 0 -,001	-,004 0 -,020 -,039 -,046	012 012	032 032 015 0% 031	017	032 015 079 012 Angle of at	031 035 035 019	045 073 038 043	025 022 023 032	-,014 -,034 -,041	024	
59.50 Sta-	42.3 10.7 9.1 42.3 70.7 Lateral Attention (\$ Lateralar	-,060 0 0 -,001 -,010	-,004 0 -,020 -,039 -,046	032 032 032 042	015 0% 031	-,017 -,014 -,014 -,019	032 015 079 012 Angle of at	031 035 035 039 039 039 Lower surfa	045 073 038 043 043 043	025 022 023 032 032	014 034 041	024 020 021 030	Lower surface
59.50 Sta- ston (in.)	10.7 9.1 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7	0001010010010010	-,004 -,020 -,039 -,046 8 Love surfa 0.15 -,13 -,10	032 032 032 042	015 0% 031 10 07=F 17ace 020 027 046	017 024 024 039 039	042 015 019 019 012 Aracle of at Upper surface -0.004 005 045	031 7.035 035 039 039 039 Lower surfa 0.211 .173 .099	-,045 -,043 -,043 -,043 -,043 -,042 -,074	025 022 023 032 032	014 034 041	024 020 021 030 16. Upper furface 0.031 067 109	00 09 04 04 Lower surface 0.289 .223 .095
59.50 Sta- tion (in.)	10.7 5.1 10.7 10.3 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7	-,060 0 0 -,001 -,010 0 0,017 -,022 -,074 -,023 -,043 -,041	004 020 039 046 Lower surferance 1.15 1.10 05	0½0½0½0½0½0½0½0½	10 10 10 10 10 10 10 10 10 10	017004004005005005007007007007007007007	012 015 015 015 015 015 016 025 045 045 047 047	031 035 035 037 039 039	-,045 -,073 -,098 -,043 -,043 -,043 -,017 -,	009029032032032032		024020021030 16. Upper surface 0.031097097109092119061	00 03 04 04 04 04 0.249 .223 .096 .214 .155 .039
59.50 Sta- tion (in.) 10	10.7. 9.1 10.7. 9.1 10.3 10.7. 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7	-,060 0 -,001 -,010 -,010 -,010 -,014 -,022 -,004 -,014 -,022 -,004 -,014 -,014 -,014 -,014 -,014 -,014 -,016 -,016 -,017 -,017 -,018 -,018 -,019	-,004 0 -,029 -,046 Love surfs 0.15 -13 -10 -06 -06 -07 -08 -08 -08 -08 -08 -08 -08 -08	032 032 032 042	10 10 10 10 10 10 10 10 10 10	Lower curfar- 0.151 Lower curfar- 0.151 .116 .073 .074 .073	012 015 015 015 015 015 015 026 026 045 045 045 045 046 047 047 079	031015015017019	045 073 018 043 043 047 017 017 017 017 017 017 017 017 017 017 017 017 017 017 017 017 017 018 018	009009003003032032032032032032032032		024 020 021 021 030 031 071 071 092 109 092 109 092 119 061 121	00 03 04 04 04 04 0.249 .223 .049 .214 .155 .039 .170 .119
59-50 (ta- tion tion) 10 15 20	22-3 20-7 2-7 2-7 2-7 20-7 2-7 2	-,060 0 -,001 -,010 -,010 -,010 -,010 -,010 -,010 -,011 -,012 -,013	004 0020 020 046 Lover surfe 0.15 .10 .05 .05 .05 .04 .05 .05 .05 .05 .05 .05 .05 .05	0½0½0½0½0½0½0½0½	10 000 000 000 000 000 000 000 000 000	-0.07 -0.07 -0.04 -0.05 -0.0		011 013 015 017 019 019 019 019 019 019 019 019 019 019 019 019 019 019	-,045 -,043 -,043 -,043 -,043 -,043 -,042 -,073 -,073 -,100 -,073 -,100 -,073	009029029039		16. Upper urface002003003003003005	0003040404040405040506060606060606
59.50 59.50	\$2.5 \$0.7 \$1.7 \$2.1 \$2.1 \$2.1 \$2.1 \$2.1 \$2.1 \$2.1 \$2.1 \$2.7	-,060 0 0 -,001 -,010 -,010 -,010 -,010 -,014 -,007 -,014 -,017 -,017 -,017 -,017 -,018 -,017 -,018 -,017 -,018 -,017 -,018	-,004 0 -,020 -,020 -,046 Lover surface 0,15 -13 -10 -00 -00 -00 -00 -00 -00 -00	0#2	015056031 10 07-7	Lower surface 0.167 -0.074 -0.074 -0.075 -0.075 -0.075 -0.075 -0.076 -0.		011 013 015 017 019 019 019 019 019 019 019 019 029 029 039 039 039 039	-,045 -,043 -,043 -,043 -,043 -,043 -,049	00%	,01k,01k,041	024029021030 16 Upper uprfer030 03107307507	0009090909090909
59.50	12-3 12-3 12-7 1-1 12-3 1	-,060 0 0 -,001 -,010 -,010 -,014 -,007 -,044 -,007 -,043 -,045 -,007 -,007 -,	-,004 0 -,020 -,020 -,046 Lover surface 0,15 -13 -10 -05 -05 -05 -01 -01 -01 -01 -01 -01 -01 -01	0\$20\$20\$20\$20\$20\$20\$20\$20\$20\$3	015066081 10 077081 10 077081 10 077084 07708608008	-0.01		-01) -01) -01) -01) -01) -01) -01) -01)	045045043043043043043041044072073	072 025 025 025 032		024029021021030 16. Upper urreac0571090971091190521190511190511190511	0000000000000000
59.50 514a- 10n 110 10 15 29 29 31.50	12-2 12-3	-,060 0 -,001 -,010 -,010 -,010 -,017 -,017 -,017 -,017 -,018 -,019	-,004 0 -,020 -,020 -,046 Love- sur re 0,15 1,10 1,00 -,046 -,000 -,010	0\$/	015006031 10 07-F	-0.07			043 043 043 043 043 044 044 047 047 047 049 059	079029023039 14 Love survey 0.0 1.1 1.1 1.0 0.0 1.1 1.0 0.0 0.0 0.0		024029020021021030 Upper urfac030031077109077109119061121061121061121071131	00004004004004005009004005009005009009009009009009009
59.50 514- 1100 110 120 229 31.50 34.50	1-2-1 1-2-	-,060 0 0 -,001 -,010 -,010 -,010 -,010 -,011 -,011 -,011 -,012 -,014 -,	- 00 - 00 - 00 - 0	0.920.920.920.920.920.920.920.920.920.93	-0.15 -0.15	-0.07		-011 -017 -017 -017 -017 -017 -017 -017	-043 -043 -043 -043 -043 -043 -044 -044			024029020021030 10, 10, 10, 10, 10, 10, 10, 10, 10, 10,	00
59.50 51.50 10 10 10 10 17 19 19 19 19 19 19 19 19 19	12-3 12-3 12-1 12-3 	-,060 0 0 -,001 -,010 -,010 -,010 -,010 -,010 -,011 -,020 -,041 -,022 -,044 -,043 -,	- 00 - 00 - 00 - 0		-0.15 -0.05	-0.07 -0.04 -0.04 -0.09		-011 -011 -011 -011 -011 -011 -011 -011	003 003			024029020021021021021030 Upper urrer urrer031071	00004004004004005009004005009005009009009009009009009
59.50 516- 516- 5100 10 15 20 27 28 34.50 34.50 34.50	12-1 12-1	-,050 0 0 -,001 -,010 -,0	-00 -00 -00 -00 -00 -00 -00 -00 -00 -00		-0.15 -0.15	-0.07 -0.0		-011 -011 -011 -011 -011 -011 -011 -011	-003 -003 -003 -003 -003 -004 -004 -007 -007 -007 -007 -007 -007			024029020021030 16. Upper021030 17. Upper021030031	0000000000000000
59.50 (in.) 15 (29.50 in.) 15 (29.50	12.1 12.1	-,060 0 0 0 -,011 -,010 -,010 -,010 -,010 -,011 -,021 -,021 -,041	-00 -00 -00 -00 -00 -00 -00 -00 -00 -00		-0.15 -0.05			-011 -017 -017 -017 -017 -017 -017 -017	0.07			024020020021	0000000000000000
59.50 10 10 15 20 29 31.50 31.50 41.50 44.50	12-3 12-3	-,050 0 0 -,001 -,010 -,010 -,010 -,011 -,011 -,011 -,011 -,012 -,014 -,015 -,016 -,017 -,016 -,017 -,016 -,017 -,016 -,017 -,016 -,017 -,016 -,017 -,016 -,017 -,016 -,017 -,016 -,017 -,017 -,017 -,018 -,018 -,019 -,	-00 -00 -00 -00 -00 -00 -00 -00 -00 -00		-0.15 -0.15	-0.07 -0.0		-011 -017 -017 -017 -017 -017 -017 -017	0.070.03			024029020021030 10, Upper031 -	00010409040704070407040704070407040707070707070707
29,500 100,100,100,100,100,100,100,100,100,1	12-3 12-3 12-1 	-,060 0 0 0 -,011 -,010 -,010 -,010 -,010 -,011 -,021 -,021 -,041	-00 -00 -00 -000 -000 -000 -000 -000 -		-0.15 -0.15			-011 -011 -011 -011 -011 -011 -011 -011	0.07			024020020021	0000000000000000

TABLE II.— PRESSURE COEFFICIENTS ON A FUSELAGE IN COMBINATION WITH A WING HAVING A SWEEPBACK ANGLE OF 45° AND AN ASPECT RATIO OF 4.

(a) M,O.40.

	Percent		$\overline{}$		2	0		attack, de					5
<u>.</u>	fuselage radius	Upper	Lover	Upper surface	Lorer	Upper surface	Lover	Upper surface	Lover	Upper surface	Lower	Upper surface	Love
,	8.7 42.3 70.7	0.135 .075 .084	0.003	0.066	0.013	0.03h .03h	0.022	0.013 .013	0.038 .034 .031	0.006 .009	0,066 .063 .041	0 003 009	0,21 .07
, -	8.7 8.3 70.7	-,035 .022 .006	.003 .028 025 022	.035 .019 .009	.003	.031 .003 .003	.003 .003 .003	.013 0 0	.006 .003 .003	013 013 003	.035 .019 .006	-,028 -,028 -,028	.06
, -	8.7 42.3 70.7	.006 .003 006	022 035 035	.006	025	013 019 022	025	025 025 025	-,006	-,028 -,028 -,028	.006	03A 038 053	
,	8.7	-,006 -,003 -,002		.003	025 026 026 028	022 025 026	025 025 025	- 028	006 006	-,028 -,035 -,035	.003 .003 022	-,053 -,084 -,053 -,059	.00
9,50	\$2.3 70.7		047 041 041	.003	_ noA	_ re8	-,026	031 031 039	006	~035			.01
	8.7 k2.3 70.7	-,016	050 041 041	003 0 .003	-,028 -,028	-,028 -,028	-,028 -,028	039 039 039	006 006 019	- 035 - 035 - 035	.003 .003 016	053 059 061	.0
1.50	8.7 42.3 70.7	.003 .003 .003	057 053	0	026 026 028	026 026 025	028 025 025	039 028	009 009 0	053 050 038	.003	063 066	.0
1.50	8.7 \$2.3 70.7	.003 .182 .016	060 060	.013 .009 .006	028 028 025	-,006 -,013 -,003	026 025 0	028 031 028	.003	-,035 -,044 -,053	.009 -,028	063 072 091	.0
7.50	8.7 k2.3 70.7	.022 .025 .044	091 104	.003 .003 .022	057 057	031 034 025	03A 028	060 060 060	.003	085 095 091	.035	116 122 156	-,00
1.50	8.7 42.3 70.7	.028 .013 .025	104 116 148	.003 0	060 079 088	050 047 056	056 028 028	069 075 091	022 025 025	-, 091 -, 097 -, 129	.009 .009 .019	-, 128 -, 153 -, 159	0.
1.50	8.7 k2.3 70.7	.003	~113 ~123 ~151	-,025 -,026	-,072 -,086 -,104	- 060	060 063 091	-,091 -,107	028 031 056	-116 -129	.003 .003 022	153 184	
7.50	8.7 42.3 70.7	.003 .025 003	097 116 129	-,025 ,003 -,026	072 085 094	-,060 -,082	060 063 085	~.085 ~.031 ~.107	034 036 056	091 093 123	003 006 019	- 122 - 078 - 159	
0.50	8.7 \$2.3 70.7	-,013 -,019 -,026	- 107 - 119	-,028 -,028	072 088	060 060 075	063	088 088	-, 100 -, 053 -, 060	091 091 107	- 028 - 028	.116 122 117	- :
2.50	70.7 8.7 42.3 70.7	-,028 -,013 -,022	- 119 - 082 - 073 - 073	041 028 028	060 060	075 053 053	056 056 056	091 060 060	034 034 034	- 066	013 025 016	091	.0
	70.7	-,022 -,025 -,019 -,013	075 060 057 094	028 022 048	057	053 044 044 028	-,056 -,050 -,044 -,034	060 056 050 034	034 031 028	066 060 057	016	-,091 -,066 -,066 -,050	100
V. 50	ذ قا		- 22	048	035	028	034	034				050	
9.50	8.7 42.3 70.7 8.7 42.3 70.7	-,013 -,022 -,022 -,019	038 038 035	025 022 022	025 025 029	-, 028 -, 028 -, 028	-, 028 -, 028 -, 028	031 031 034	028 028 028	===		044 044 038	1,0
9.50	8.7 42.3 70.7			-,025 -,022 -,022		-, 028 -, 028 -, 028	-,028 -,028 -,028 -,028	attack, do	- 028 - 028 - 028 - 028	===	16	-, 038	
		-, 022 -, 022 -, 029	038 038 035	-,025 -,022 -,022	-,025 -,025 -,029	-, 028 -, 028 -, 028 -, 028	Angle of	uttack, de Upper eurface	Crone	Upper eurface	16 Lower eurface	-, 038	18
9.50	8.7 42.3 70.7 Percent fuscing	-, 022 -, 022 -, 019	8 Lower surface 0,122	-,025 -,022 -,022	-,025 -,025 -,029	-, 028 -, 028 -, 028 -, 028	Angle of 12 Lover surface	uttack, de Upper eurface	Crone	212	16	-,038	IS Lo
9.50	8.7 12.3 70.7 Percent fuselage radius	7,022 -,022 -,019 Typer surface -0.022 -,031 -,031	8 Lower surface 0,122 .097 .059	Upper surface -0.028029029029034039056	-,025 -,025 -,029 -,029 -,029 Lover surface 0,184 -,029 -,039 -,039	-, 028 -, 028 -, 028 -, 028 -, 028 -, 034 -, 053 -, 064	Angle of	attack, do	Lover eurrane 0.197 .144 .041	Upper surface -0.098 093 125	16 Lower eurface 0.24 .167 .071	Upper surface	B Lor
9.50 Star- ion in.)	8.7 10-3 70.7 Percent fuselage radius 8.7 12.3 70.7 8.1 12.3 70.7	Upper surface -0.022031034041056	038 039 035 035 035 035 035 035 035 035 035	-,025 -,022 -,022 -,022 -,022 -,024 -,034 -,039 -,039 -,039 -,039	10 Lover eurface 0,144		Angle of 12 Lower aurface 0.164 .134 .059 .141	Upper surface -0.053 063 106 088 119	Lover eurrane 0.197 .144	Upper eurface -0.058 093 125 061 119 141	16 Lower eurrace 0.244 .167 .071 .192 .061 .003 .154 .068	Upper surface	B Logar
9.50 Stantion (in.)	8.7 10-3 10-7 Pervent fuechage resitue 8.7 12-3 70-7 8.7 12-3 70-7 8.7 12-3 70-7	Upper surface -0.029 -0.031 -0.031 -0.053 -0	8 Lower eurises 0,122 .097 .091 .069 .019 .019 .003	-,025 -,022 -,022 -,022 -,022 -,034 -,034 -,035 -,035 -,035 -,036	- 02) - 02) - 02) - 02) - 02) - 02) - 02) - 03) - 03) - 03) - 04)	- 028 - 028 - 028 - 028 - 028 - 034 - 034 - 031 - 031 - 031 - 031 - 031 - 031	Angle of 12 Lower surface 0.18k .13k .059 .1kk .097 .019	Upper surface -0.053063106099063003	Lover eurface 0.197 144 .041 .128 .097 .006 .072	Upper eurface -0.058 -0.033 -125 -061 -119 -131 -129 -289	16 Lower eurface 0,244 .167 .071 .192 .061 .003 .154 .069 ~.069	Upper surface	B Lor
9.50 Stanion in.)	8.7 10-3 10-7 Percent fuse lag- rative 8.7 12-3 70-7 8.7 12-3 70-7 8.7 12-3 70-7 8.7 12-3 70-7	022 023 019 Upper surface -0.022 023 031 056 063 066 066 066 066	038 039 039 039 039 039 039 039 049	-,005 -,002 -,002 -,002 -,003 -,004 -,005 -,005 -,009 -,009 -,009 -,009 -,009 -,009	- 009 - 009 - 009 - 009 - 009 - 019 - 019 - 019 - 019 - 019 - 019 - 001 - 001 - 002 - 003	- 028 - 028 - 028 - 028 - 028 - 034 - 034 - 033 - 066 - 091 - 092 - 092 - 093 - 091 - 091	Angle of 12 Lower aurtee 0.184 .134 .059 .019 .019 .019 .019 .019 .019 .006 .061 .062 .065 .065 .065	Opper surface -0.073 -063 -119 -063 -094 -112 -084	Lover eurrane 0.197 .144 .041 .128 .097 .006072 .022 .113 .066 .288	Upper eurface -0.098 -0.093 -125 -0.01 -119 -128 -289 -090 -134	16 Lever eurface 0, 244 . 167	Upper surface	B Los sur
9.50 Star- cion in.) 10 20	6.7 10.3 70.7 Percent Fuerlage matter 6.7 12.3 70.7 6.7 12.3 70.7 6.7 12.3 70.7 12.3 70.7 12.3 1	### OF THE PROPERTY OF THE PRO	-0.98 -0.95 -0.93	-,05) -,022 Dyper eurface -0,028 -,034 -,034 -,039 -,031 -,036 -,037 -,031 -,	000 100	- 028 - 028 - 028 - 028 - 028 - 034 - 034 - 051 - 066 - 091 - 069 - 091 - 079 - 079	Angle of 12 Lover aureous 0, 10h	Typer surface -0.033063063069069069063063063063113128091128091128091128091128091128091	Lover eurino 197 114 128 129 129 129 129 129 129 129 129 129 129	Upper eurrace	16 Lower L	Upper surface	B Los sur
9,50 Standard 10 10 15 20 28,50	6.7 40.3 70.7 Purvent fuelage matter 5.7 12.3 70.7 6.7 12.3 12.	- 022 - 022 - 023 - 019 - 019	8 Lower eurtwee control of the contr	-,05) -,022 -,022 -,022 -,022 -,034 -,053 -,053 -,057 -,059 -,051 -,059 -,051	002) -002) -002) -002) -002) -003 -003 -003 -003 -003 -003 -003 -00	- 028 - 028 - 028 - 028 - 028 - 028 - 028 - 028 - 023 - 023 - 024	Angle of 12 Lover aurtee 0, 184 134 1599 144 1599 159 159 159 159 159 159 159 159 15	ottack, de Upper eurrase eurrase	Lower 14 Lower 15 Lower 15 Lower 16 Lower 17 Low	079er eurace -0.095 -129 -129 -129 -129 -129 -129 -129 -129	16 Lower eurrace 0.244 .167 .071 .198 .063 .003 .154 .069 .129 .099 .129 .099 .120 .099 .120 .099 .120 .099 .099 .099 .099 .099	Upper surface	B
9,50 10 10 10 20 28,50 31.50	6.7 10.7 1	- 022 - 022 - 023 - 019 - 019 - 019 - 019 - 019 - 019 - 021 - 021	8 Lower curries 0,122 079 099 091 001 003 003 003 009 004 004 004 006 006 006 006 006 006 006	-,005 -,002 -,002 -,002 -,002 -,002 -,003 -,009 -,00 -,00	100 100	-0.08 -0.08 -0.08 -0.09	Angle of 12 Lower auritos 0, 124 124 124 125 126 126 126 126 126 127 127 128 1	Typer eurises -0.073 -003 -006 -119 -008 -113 -128 -117 -1175 -1176 -221 -221 -221 -221 -221 -221 -221 -22	Lower Lowe	Upper eurisce -0.098 -0.093 -129 -119 -128 -128 -129 -119 -117 -117 -166 -0.09	16 Lower eurrese 0.244 .167 .97 .061 .093 .093 .093 .093 .093 .093 .093 .093	Upper surface	B Los sur
19,50 10 10 10 10 20 28,50 31.50	6.7 10.7 1	- 022 - 022 - 023 - 019 - 019	6 Lower surface 0, 122 -0, 123	05)020202020202020303030303030303	- 009 - 009 - 009 - 009 - 009 - 009 - 009 - 019	-008 -008 -009 -009 -009 -009 -009 -009	Angle of 12 Lower aurites 0, 16h 13h 15h 1	ottack, de current de	Lover Love	Upper eurises	16 Lower eurrace 2 167 167 192 167 193 194 105 106 107 195 107 109 109 109 109 109 109 109 109 109 109	Upper surface	B
19.50 10 10 10 20 28.50 31.50 37.50	8.7 10.7 1	- 002 - 002 - 009 - 009 - 009 - 001 - 003 - 005 - 006 - 006	-0.98 -0.93 -0.93 -0.93 -0.93 -0.93 -0.93 -0.94 -0.95 -0.96 -0.97	-029 -022 -022 -022 -022 -028 -029 -029 -029 -029 -029 -029 -029 -029		- 008 - 008	Angle of 12 Lower aurent of 12 Lower aurent of 12 Lower aurent of 12 Lower aurent of 12 Lower of 12 Low	Typer surface	Lover	Dyper	16 Lower surface 0.244 1.167 1.101 1.101 1.103	Upper surface	B Los sur
19,50 10 10 11 12 20 26,50 31.50 37.50	6.7 10.7 1	- 022 - 022 - 029 - 029	- 0.98	-007 -002 -002 -002 -002 -002 -003 -003 -003	- 002) - 002) - 002) - 002) - 003 -	- 008 - 008 - 008 - 008 - 008 - 008 - 008 - 008 - 008 - 009	Angle of 12 Lover authorized to 1,100	Typer eurfaces	Love	Dyper	16 Lower eurrace 16 Lower 17	-098	B Longuri
99.50 10 10 10 10 20 28,50 31.50 34.50 41.50	6.7 10.7 1	- 022 - 022 - 029 - 029 - 021	- 0.98 - 0.95 -	-029 -029 -029 -029 -029 -029 -029 -029		- 008 - 008	Angle of 12 Lower aurtee o. 124 0. 124 1. 134 0. 129 - 0. 066 0. 061 0. 061 0. 062 1. 120	### ##################################	Lower Lowe	Dyper	16 Lower currace curra	-098	BB Local Survival Control of the Con
9.50 20 20 20 31.50 37.50 41.50 50.50	6.7 10.7 1	- 002 - 002 - 009 - 009	- 0.98 - 0.99 - 0.99 - 0.99 - 0.99 - 0.99 - 0.91 - 0.99 - 0.91 -	-007 -007 -007 -007 -007 -007 -007 -007	- 002) - 002) - 002) - 003) - 003 -	- 008 - 008	Angle of 12 Lower aurtee o. 124 0. 124 1. 134 0. 129 - 0. 066 0. 061 0. 061 0. 062 1. 120 1.	### ##################################	Lower works of the control of the co	Department of the control of the con	16 Lewer eurrace 0.22h (16 h) 16 h	Opportunities	B Los sur
99.50 10 10 20 25 26.50 31.50 37.50 47.50 50.50 53.50	6. 7 10. 1 10.	- 022 - 022 - 023 - 029 - 029	-0.98 -0.09	-007 -007 -007 -007 -007 -007 -007 -007	- 002) - 002) - 002) - 003) - 003 -	- 008 - 008	Angle of 12 Levere surface 0.124 -0.124 -0.124 -0.125 -0.066 -0.06 -0.066 -0.0	Typer	14 Lores 14 Lores 15 Lores 15 Lores 16	Dyper	16 Lower eurrace 16 Lower 17	-098	B Longuri
9.50 20 20 20 31.50 37.50 41.50 50.50	6.7 10.7 1	- 002 - 002 - 009	- 0.98 - 0.99 - 0.99 - 0.99 - 0.99 - 0.99 - 0.91 - 0.99 - 0.91 -	-007 -007 -007 -007 -007 -007 -007 -007	- 002) - 002) - 002) - 003) - 003 -	- 008 - 008	Angle of 12 Lower aurtee o. 124 0. 124 1. 134 0. 129 - 0. 066 0. 061 0. 061 0. 062 1. 120 1.	### ##################################	Lower works of the control of the co	Department of the control of the con	16 Lewer eurrace 0.22h (16 h) 16 h	Opportunities	70

TABLE II.- CONTINUED

(ъ) м,0.60.

Part							Are	e of attack,	degrees			 		
19-10 19-1	Sta- tion	Percent fuselage										· 		
1.	(in.)			Lower surface					Upper surface	surface :		surface		
10.00	10	8.7 42.3 70.7	.075	.015	.060 .054	0.015 .017 .020	.039	.030	.030 .025	0.052 .041 .040	.011	.071	400.	0.109 .096 .069
10.77	15	42.3	.038	011	.030 .028	010	.020	0	<u> </u>	.013	009 009		053	.060
S.	20	8.7 \$2.3 70.7	.020 .011 002	039	.013 .006 001	021 025	010 011 021	021 023	021	008 011	031 030 030	.020	039 047 049	.030 011
19.77	25	8.7 42.3	017	- 012	.003	- 020	024	029	030	010	036 039	.017	049	.001
10.7 10 10 10 10 10 10 10 1	38.50	42.3 70.7	.010 i	038 037 037	0 0 006	028	012	009	020 018 018	.002 .006 0	037	.001	052 060	0
10.0	31.50	8.7 42.3 70.7	.017	043 044 042	.001	032 033 019	017 014 0	014	016	.011 .009	031 032	.020	062 071	.020
14.10 1.10	34.50	8.7 k2.3 70.7	.038 .029 .070	055 047 048	.018	041	.013 .008 .020	I 0	~.032	.001 .011 .019	051 058 059	.031 .032 .036	069 072 080	.069 .058 .054
14.10 1.10	3P.00	8.7 42.3 70.7	040. 040. Vio.	003	.010	059	010 018 .008		~.066		107 119	.047 .078	135 161	.123
March Marc	41.50	6.7 42.3 70.7	020	117	001	091	040 041 047	051 058 062	079 081 100	017	120 132 159	.030 .032 .042	148 170 208	.070
	44.50	8.7 \$2.3 70.7		121 127 159	019	100	059 069	063 080	111_	026 041	140 168	.021	210	.051
10.10	¥7.50	8.7 \$2.3 70.7	009	112 120	021 .020 039	099	017 082	090	093 045 120	037 046 057	080 164	0 009 016	149 090 188	-039
10.7	50.50	8.7	011 010 021		030 032 047	091 101	064 062 076	072 090	090 090 101	061		029	130 131 151	.020
10 10 10 10 10 10 10 10	53.50	70.7	 012 015	088 079	034 030	075 067	068 052	069 068 068	072 061	031		010 011	099 094	009 003
Total Tota			.013 .009	039	015 0	037 030	036 015	030 015	050 024	010	089	0.009	091	.009
10	59.50	8.7 42.3 70.7	.019	011 011 010	.004	012	0	.0	009 004 004	.008	018	.011	022 019 013	.013 .029 .009
100	Str-	Percent fuseinge	<u> </u>	3		10	Angle of at	tack, degree	•		14			
10		radius	Upper eurface	Lover	U su		Lower aurface	Upper surface	surface	surface	sur	er ace	Upper surface	surface
10	10	8.7 42.3 70.7	-0.018 01;	0.130 .110 .064		.036	0.161 .130 .064	-0.036 052 070	. 140	-0.040 057 097		75	0.045	.199
20	15	8.7 42.3	040	.071	=	.055 .055	.122 .084 .030	045 069 091	.100	077		.30]	107 118	.229 .152 .026
Section Sect	20	9.7 42.3 70.7	047 057 070	.042] =	.050 .070 .093	.005	076 100		050 095 112	0	09	121	010
22.50 8.7 -060 .060 .062 -073 110 -061 112 -097 .189 70.7 -073 -069 .041 -091 .041 -000 -010 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -000 -110 -100 -010 -000 -110 -000 -110 -100 -110 -110 -110 -110 -110 -110 -110 -110 -110 -110 -111 -110 -111 -110 -111 -111 -111 -111 -111 -111 -111 -111 -111 -111 -111 -111 -111 -111 -111 -111	25	42.3 70.7	052 062	.031	=	.052 .071 .100	005	100	.060 005	101 111	 c	90 18	122 122	018
18.50	28.50	8.7 42.3	060 069 073	.041	=	.069 .091 .104	.041 1	100 115	.110 .068 009	130	 c	42 90 14	097 147 146	.110 027
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	31.50	70.7	079	.047] =	.098 .116 .130	0 052	140	.081	113 157 156		.05 x09	190	.002
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	34.50	8.7 42.3	0% 113 132	.099 .067 .060_		.159	.125 .100 .061	210	.169 .124 .062	238 251	.2	.54 178	279 282	.190
\$\begin{array}{c ccccccccccccccccccccccccccccccccccc	38.00	8.7 42.3 70.7	171 201 248	.121	=	227 276 340	.1% .189	253 321 380	.229	-,495		148	571	.282
**************************************		70.7	202 236 280	.121	:	.312 .362	.169 .199	292 371 -,430	.199 .230	512		72	523 581	330
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		8.7 42.3 70.7	232 273	.100 .100		.300 .342		398	.181	_,458		20	521	.270 .281
70.7	L	42.3 70.7	239	.079	-	.300	.111	209 330	.149	378	.1	170 178		===
70.7 -138 .021 -131 .051 -156 .062 -214 .065 56.50 8.7 -0.69 .041 -0.09 .091 -101 .051 -122 .076060 10.7 -0.09 .041 -0.09 .091 -132 .051 -129 .076060 10.7 -0.09 .049 -130 .007 -132 .053 -159 .071081 10.7 -0.09 .049 .029 .061 .000 .000 .000 .000 .000 .000 .000		70.7			- 1	.223	.079 .073	190 264 248	.103 .100	222 359 300		119		
56.50 8.7 -0.69 .041 -0.69 .071 -1.01 .061 -1.27 .076080 .071 -1.01 .061 -1.27 .076080 .076081 .076081 .077081 .081 .081 .081 .081 .081 .081 .081	53.50		 141 138	.030	=	.155	.070 .064 .051	156	.069 .062	214		265		
	56.50	8.7 42.3	090 049	.039		.061	.040	132 090	.053 .048	127	- 1	249	189	.081 .049
	59.50	12.3	046	.029		.032 .033 .029	.049	050 054 052	.048	079		047 053 021	107	.090 .055 .021

TABLE II.- CONTINUED

(c) M,0.70.

					Angle of at						
Sta- tion	Percent fuselage radius					0		2		N	
in.)		Upper aurface	Lower surface	Upper surface	Lover	Upper	Lover	Upper surface	Lover	Upper surface	Lover surface 0.076
10	8.7 \$2.3 70.7	===		0.053 .044 .039	0.003 .007 .008	0.150 .030 .033	0.029 .022 .021	0.020 .024 .023	0,043 .046 .040	0,011 ,011 ,013	.069 .054
15	8.7 \$2.3 70.7		===	.029 .026 .011	020 . 023 019	.029 .002 0	.001 002 007	011 009 008	.013 0 1001	017 016 009	.048 .031 .021
20	8.7 \$2.3 70.7			009 011 021	042 044	017 020 021	020 021	030 030 030	020	040 042 043	0000
25	6.7	===	:::	017 027	048 048	020 029 035	029	040 040	009 020	046 048 051	008 031
28.50	8.7 42.3 70.7		===	030 018 029	051 045 048	032 019 028	035 035 038 039	040 038 029	038 035 040	041 041 046	.003 001 011
31.50	8.7 42.3	===		03'/ 018 020 024	048 050 050	028 021 030	035 030 050	010 011 011	029 030 025	050 044 040	.017 .004 .003
j4.50	70.7 8.7 \$2.3	===	===	.029	027 019	.009	003 .003 .019	073 070 062	046 043 027	101 109 101	023 022
38.00	8.7		===	.036 .014 .040 .159	00k 07,3 .003	.019 020 016 001	013	-,101 -,107 -,100		150 165 169	020 009 .024
41.50	8.7 52.3	===		0007	0·n 101	038 042	-,009 -,045 -,053 -,058	087 096	019 021 031	169 127 140 169	.029 .023 .043
44.50	8.7		322	005	-,110 -,110	00	058 067 074 091	-,110 -,111	029 040 046		.043 .009
10.60	8.7 12.5 70.7			03h 043	117 139 111	~.069 ~.083	091 067	128 099 055	~.059	155 180 147 184	.003 005 018
17.50	8.7 42.3 70.7	===	===	.007 058	117 189	058 006 079	073 086	130	043 050 067	179	-,018 -,021
50.50	8.7 \$2.3 70.7	===	===	051 055 060	110 123	068 075 081	079 081	099 101 118	059 070	138 141 152	030
53.50	8.7 42.3 70.7	===		040 041	084 089 078	051 051	055 057 058	080 071	050 050	-,100 -,091	019 -021 -018
	1 0-		069	041 040 020	050 052 047	039 040	050 039 028	064 055 040	-040 -045 -028	070 066 044	018 013 009
56.50	12.3 70.7	009	061 047	-,020	047	020	0.0	_			
56.50 59.00	8.7 42.3 70.7 8.7 42.3 70.7	-,009 -,010 -,009 -,011	047 040 040 032	020 030 010 020	041 038 031	030 025 023	041 040 020	042 031 033	030 013 -,018	059 040 041	013 001 029
	8.7 8.7 22.3 70.7	-,009 -,010 -,009 -,011	047 040 040 032	-,020 -,030 -,010 -,020	041 038 031	030 025 023	041 040 020	042	030 013 018	059 040	013 001 029
59.00	8.7 42.3 70.7	-,010 -,009 -,011	040 040 032	030 010 020	041 041 038 031	030 025 023	041 040 020	042 031 033	030 013 018	-,059 -,040 -,041	013 001 029
	8.7 12.3 70.7	-,009 -,010 -,009 -,011	040 040 032	030 010 020	041 038 031	030 025 023	-,020 -,041 -,040	042	030 013 018	-,059 -,040 -,041 Upper surface	013 001 029
59.00	8.7 k2.3 70.7 Percent fuscinge radius	-,010 -,009 -,011	-,040 -,040 -,032 -,032	-,030 -,010 -,020 Upper ourface	041 038 031 Angle of a 8 Lower curface	030 025 023 ttack, degree Upper surface	041 040 020	042 031 033	030 013 018	-,059 -,040 -,041 Upper surface	013 001 029
50,000 Bta- tion (in.	8.7 \$2.3 70.7 Percent fuselnge radius 8.7 \$2.3 70.7 8.7 \$2.3	-,010 -,009 -,011 Upper surface		030 010 020 Upper ourface 020 028 031 046	Angle of a	030 025 023 ttack, degree Upper surface	041 040 020	-,042 -,033 -,033 -,033 -,033 -,057 -,068 -,059 -,060 -,103	030 013 018	-,099 -,040 -,041 Upper surface -,057 -,083 -,121 -,067 -,099 -,126	-013 -001 -029
59,00 Station (in.	8.7 12.3 70.7 Percent funsinge radius 8.7 12.3 70.7 12.3 70.7 18.7 18.7 18.7 18.7 18.7 18.7	-,010 -,009 -,011 -,011 -,011 -,011 -,011 -,011 -,011 -,011 -,011 -,011 -,011 -,011		030 010 020 Upper nurface 020 028 031 046 052 059	-,0k1 -,038 -,031 Angle of a 8 Lower surface .123 .101 .059 .068	-,030 -,025 -,023 ttack, degree Upper surface -,040 -,050 -,061 -,061	011080020 10 Lower surface156119062206206206	0.02 0.03 0.03 0.03 0.04 0.04 0.05 0.05 0.05	030 013 018 018 018 018 023 023	-,099 -,040 -,041 Upper surface -,057 -,083 -,121 -,067 -,099 -,126	013001029 14 Lower surface .214 .159 .048 .178 .010
59,000 Station (in.)	8.7 h2.3 70.7 Percent funcings radius 8.7 k2.3 70.7 8.7 k2.3 70.7 8.7 k2.3 70.7	-,010 -,009 -,011 Upper surface -,009 -,001 -,030 -,030 -,030 -,030 -,050 -,052	- 0k0 - 0k0 - 0k2 - 032 - 032 - 032 - 032 - 042 - 042	-,030 -,010 -,020 Upper ourface -,020 -,021 -,016 -,052 -,052 -,058	041038031	-025 -025 -023 ttack, degree Upper surface -050 -060 -077 -061 -097 -061	,041 ,040 ,020 10 Lover surrace -136 -119 -062 -220 -020	-,042 -,033 -,033 -,033 -,033 -,057 -,068 -,059 -,060 -,103	030 013 018 018 018 019 023 023 023 023 029	-,059 -,040 -,041 -,041 -,041 -,057 -,063 -,121 -,067 -,069 -,126 -,069 -,139 -,150	-013 -001 -029 -029 -029 -029 -029 -021 -021 -031 -031 -031 -039
59,000 Bta- tion (in.	8.7 fuel fuel lage red lus 8.7 k2.3 70.7 8.7 k2.3 70.7 k2.3 70.7 k2.3 70.7 k2.3 70.7	-,010 -,009 -,011 Upper surface -,009 -,011 -,030 -,030 -,034 -,056 -,056 -,056	-,0k0 -,0k0 -,0k2 -,032 -,032 -,032 -,038 -,038 -,038	-,030 -,010 -,020 Upper nurface -,020 -,028 -,031 -,046 -,052 -,052 -,052 -,052 -,053 -,049 -,064	-041 -058 -031 -031 -031 -031 -031 -031 -031 -031		-,040 -,020 10 10 10 10 10 10 10 10 10 10 10 10 10	-,0\(\frac{1}{2}\)-,0\(\frac{1}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}{2}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(\frac{1}\)-,0\(1	-030 -013 -015 -015 -015 -015 -015 -015 -015 -015	092 004 001 001 001 001 007 007 126 009 126 008 137 137	-013 -001 -029 -029 -029 -039 -039 -039 -039 -039 -039 -039 -03
59,00 Bta- tion (in. 10	6.7 iz., 3 ro.7 ro.7 ro.7 ro.7 ro.7 ro.7 ro.7 ro.7	-,010 -,009 -,011	-,0k0 -,0k0 -,0k0 -,032 ,032 ,032 ,069 -,069 -,069 -,069 -,069 -,069 -,069 -,069 -,069 -,069 -,069 -,069 -,069 -,069 -,08 -,08 -,08 -,08 -,08 -,08 -,08 -,08	030030020 Upper ourface020020 Upper ourface020031046052059033049050079060079	-0,13 -0,13		-041 -040 -020 10 10 10 10 10 10 116 117 00 10 00 00 00 00 00 00 0	- 0\text{\text{\chi}} - 0\text{\chi} - 0\	-030 -013 -018 -018 -018 -018 -018 -018 -018 -018		-013 -001 -009 -009 -009 -009 -009 -009 -009
55,000 Station (in.) 10 20 25 28,50	8-7 22-3 70-7 Percent Fundage redited 8-7 42-3 70-7 8-7 8-7 8-7 8-7 8-7 8-7 8-7 8-7 8-7 8		- 0k0	-030 -010 -000 -010 -000 -000 -000 -000	-048 -031 -038 -031 -031 -031 -031 -031 -031 -031 -031	-039 -029 -023 tunck, degree Uppar surface -040 -057 -061 -077 -061 -070 -061 -063 -068 -069 -068 -069 -068 -069 -070 -068 -069 -070 -068 -069 -070 -070 -068 -069 -070 -070 -070 -070 -070 -070 -070 -07	-041 -040 -060 -060 -060 -060 -060 -060 -060	- 0kg - 0kg - 013 - 013 - 013 - 013 - 013 - 014 - 015 - 016 - 015	-095 -018 12 Lover surface 1.183 -1.144 -066 -074 -074 -074 -089 -074 -011 -086 -011 -129	-099 -000 -001 -001 -001 -001 -003 -101 -009 -119 -009 -119 -016 -1101 -1101 -1100 -130 -1166 -121 -126	-013 -001 -009 -009 -009 -009 -009 -009 -009
59,000 Station (in.) 10 25 28,50 31,50	8-7 12-3 70-7 12-3 12-3 12-3 12-3 12-3 12-3 12-3 12-3	-010 -009 -011 -009 -011 -009 -001 -009 -001 -009 -009	- 040 - 040	-030 -010 -020 -020 -020 -026 -026 -026 -026 -02	-(bl)	-030 -025 -025 -025 -025 -025 -025 -025 -02	-041 -040 -050 -050 -050 -050 -050 -050 -050	- 0kg - 0kg - 013 - 013 - 013 - 013 - 014 - 015 - 016	-095 -018 -018 -018 -018 -018 -018 -018 -018	-099 -001 -001 -001 -001 -001 -001 -001	-013 -001 -029 -010 -029 -010 -029 -010 -029 -010 -010 -010 -010 -010 -010 -010 -01
59,000 Station (in.) 10 25 28,50 31,50	8-7	-010 -009 -011 -011 -011 -011 -011 -011	-, club -, clu	-030 -030 -030 -030 -030 -030 -030 -030	-041 -038 -031 -031 -031 -031 -031 -031 -031 -031	-030 -027 -023 ttnck, degree Upper eurface -050 -050 -050 -050 -061 -030 -063 -063 -068 -069 -068 -069 -068 -069 -068 -069 -070 -068 -069 -070 -068 -069 -070 -068 -070 -070 -070 -070 -070 -070 -070 -07	-041 -040 -040 -040 -040 -040 -040 -040	- 0kg - 0kg - 013 - 013 - 013 - 013 - 014 - 027 - 088 - 029 - 049	-095 -018 -018 -018 -018 -018 -018 -018 -018	-099 -001 -001 -001 -001 -001 -001 -009 -109 -1	-013 -001 -009 -009 -009 -009 -009 -009 -009
59.00 8ta-tion (in. 10 20 28.50 34.50 38.00	6.7 122.3 70.7 Percent fundage medius 8.7 122.3 70.7 12	-010 -009 -011 Upper surface -009 -001 -009 -001 -009 -001 -009 -009		-030 -030 -030 -030 -030 -030 -030 -030	-(hl -(hl -(hl -(hl -(hl -(hl -(hl -(hl	-030 -025 -025 -025 -025 -025 -025 -025 -02	-041 -040 -050 -050 -050 -050 -050 -050 -050	- 042 - 033 - 033 - 033 - 033 - 033 - 034 - 035	-095 -018 -018 -018 -018 -018 -018 -018 -018	-099 -001 -001 -001 -001 -001 -003 -107 -003 -109 -109 -109 -109 -109 -109 -109 -109	-0.13 -0.01 -0.02
59,000 Station (in.) 10 20 28,50 38,50 38,50	6.7 122.3 70.7 122.3 70.7 22.3 70.7		- 040 - 040	-030 -030 -030 -030 -030 -030 -030 -030	-041 -058 -031 -058 -031 -059 -058 -050 -058 -050 -058 -050 -058 -050 -058 -050 -058 -050 -058 -058	-030 -025 -023 -025 -023 -025 -023 -026 -026 -026 -026 -026 -026 -026 -026	-041 -040 -040 -040 -040 -040 -040 -040	- 0\lambda	-095 -016 -016 -016 -016 -016 -016 -016 -017 -018 -017 -018 -017 -018 -017 -018 -017 -018 -017 -018 -017 -018 -017 -018 -018 -018 -018 -018 -018 -018 -018	-099 -100 -001 -001 -001 -001 -001 -001	-0.13 -0.01 -0.09
55.00 8ta-tion (in.) 10 20 29 28.50 31.50 34.50 41.50	8-7	-010 -009 -001 -009 -001 -009 -001 -009 -009	-, obo -,	-030 -030 -030 -030 -030 -030 -030 -030	-041 -058 -031 -058 -031 -059 -058 -050 -058 -050 -058 -050 -058 -050 -059 -059 -059 -059 -059 -059 -059	-030 -025 -025 -025 -025 -025 -025 -026 -026 -026 -026 -026 -026 -026 -026	-041 -040 -060 10 10 1156 -119 -066 -120 -066 -010 -089 -049 -049 -049 -049 -049 -049 -049 -04	- 042 - 033 - 033 - 033 - 033 - 034 - 035	-095 -018 -018 -018 -018 -018 -018 -018 -018	-099 -001 -001 -001 -001 -001 -001 -003 -009 -119 -009 -119 -009 -119 -016 -121 -101 -110 -110 -110 -120 -121 -121	-0.13 -0.01 -0.09 -0.09 -0.09 -0.09 -0.09 -0.00
59,000 8ta-tion (in: 10 25 28,50 38.00 38.00 41.50 47.50	8.7 12.3 70.7 70.7 12.3 70.7 70.7 12.3 70.7 70.		- 040 - 040	-030 -030 -030 -030 -030 -030 -030 -030	-(h1 -(h1 -(h1 -(h1 -(h1 -(h1 -(h1 -(h1	-030 -020 -023 -023 -023 -023 -023 -024 -024 -024 -024 -025 -026 -027 -028 -029 -038 -009 -039 -039 -039 -039 -039 -039 -039	-041 -040 -050 -050 -050 -050 -050 -050 -050	- 042 - 033 - 033 - 033 - 034 - 035	-095 -018 -018 -018 -018 -018 -018 -018 -018	-099 -090 -001 -001 -001 -001 -001 -001	-0.13 -0.01 -0.09
59,000 Stantian (in.) 10 25 28,50 31,50 31,50 47,50 47,50	6.7 2c.3 70.7 8.7	-010 -009 -001 -009 -001 -009 -001 -009 -009	-, obo -,	-030 -030 -030 -030 -030 -030 -030 -030	-041 -058 -031 -058 -031 -059 -058 -050 -058 -050 -058 -050 -058 -050 -059 -059 -059 -059 -059 -059 -059	-030 -020 -023 -023 -023 -023 -024 -024 -025 -026 -026 -026 -026 -026 -026 -026 -026	-041 -040 -060 10 10 1156 -119 -066 -120 -066 -010 -089 -049 -049 -049 -049 -049 -049 -049 -04	- 042 - 033 - 042 - 033 - 042 - 033 - 042 - 041 - 042	-095 -016 -016 -016 -016 -016 -016 -016 -016	-099 -001 -001 -001 -001 -001 -001 -001 -003 -007 -003 -121 -007 -139 -139 -140 -139 -140 -130 -140 -130 -140 -130 -140 -150 -150 -150 -150 -150 -150 -150 -15	-0.13 -0.01 -0.09

TABLE II.- CONTINUED

(d) M,0.75.

	Percent	!			Angle of s	ttack, degre	<u></u>				
Sta- tion	fusclase		<u>+</u>		-2		0		2_		,
(in.)	radius	Upper surface	Lover surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lover surface
10	8.7 42.3 70.7	0.070 .067 .050	-9.302 .001 001	0.059 .046 .052	0.011 .023 .017	0.045 .047 .053	0.006 .008 .029	===	===	0.013 .019 .018	0.071 .063 .050
15	8.7 42.3 70.7	.040 .026 .013	029 037 028	.025 .026 .015	014 019 008	.010 .010 008	004 009 008		===	021 021 021	.034 .019
20	8.7 42.3 70.7	.017 .007 002	039 039	010 011 012	029 039	010 010 001	 010 013	===	===	047 049 051	017 021
25	8.7 \$2.3 70.7	.009 0 017	040 039	018 020 021	017 039 039	027 001 000	029 021 020	===	===	053 051	017 000
28.50	8.7 \$2.3 70.7	-,008, -,013 -,021	053 051 054	018 021 032	039 042 041	022 019 025	031 021 031	===		057 042 040 040	029 0 007 009
31.50	8.7 \$2.3 70.7	0 009 018	059 053 051	013 018 018	047 042 035	012 017 016	012 027 035	===		049 040 040	.003
34.50	8.7 \$2.3 70.7	.020 .020 .015	063 054 041	.021 .020 .025	029 025 017	0 .003 .015	001 011 0	===		040 039 032	.031 .033 .035
38.00	8.7 \$2.3 70.7	.030 .024 .061	110 121	.010 .011 .037	055 057	-,040 -,040	021	===		083 09) 101	.053
1.50	8.7 \$2.3 70.7	.030 .030 .039	138 144 167	010 009 008	395 101 120	0k0 0k6 050	058 071 081	===	===	120 131 156	.027 .029 .033
44.50	8.7 42.3 70.7	.00A 001	155 161 193	036 044	119 121 141	110 069	089 071 009	===	===	15: 181	-,003 -,010 -,019
47.5 0	8.7 •2.3 70.7	009 .026 029	151 167 189	035 .005 060	118 120 140	078 029 100	393 101 119	===	===	140 075 168	007 010 018
50.50	8.7 12.3 70.7	030 029 040	141 162	049 114 129	154 169	079 379		===	===	129 131 149	021 037
53.50	8.7 42.3 70.7	021 029	102 100 099	041 039	387 079 076			===	===	J91 J84	016 020 014
56.50	8.7 42.3 70.7	022 020 .009	051 043 039	032 030 010	050 040 031	009	039 030 031	-0.020	-0.019 011 009	-,061 -,359 -,031	009 001 .009
59.50	8.7 42.3 70.7	019 011 011	039 037 035	020 010 016	031 029 027	018 011 007	030 029 027	020 019 019	015 007 001	025 021 019	.004

				Angle	of attack, degree	tes			
Sta-	Percent fuselage		5	I	8	1	10	Γ	12
tion (in.)	radius	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover surface
10	8.7 \$2.3 70.7	0.003	0.110 .100 .169	-0.011 009 022	0,131 ,111 ,072	-0.030 033 051	0.155 .130 .072	-0.029 048 071	0.200 .161 .070
15	8.7 42.3 70.7	021 021 021	.079 .055 .032	029 037 034	.100 .0/9 .033	043 057 056	.129 .034 .035	045 068 08;	.168 .114 .039
20	8.7 \$2.3 70.7	-,055 -,059 -,066	.006. 017	071 079 088	.010	075 080 099	.058	082 106 130	
න	8.7 42.3 70.7	059 067 070	.008 0 029	-,070 -,075 -,082	,021 ,003 -,029	070 083 104	.161 .037 019	070 101 119	.079 .039 037
28.50	8.7 42.3 70.7	-,049 -,053 -,060	.026 .018 010	~.040 ~.050 ~.060	.059 .035	048 060 076	.088 .059	040 075 089	.119 .079
31.50	8.7 42.3 70.7	055 053 059	.038 .024 .013	060 061 072	.066 .049 .010	060 076 089	.107 .069 .019	061 090 102	,141 .090 .020
34.50	8.7 42.3 70.7	061 060 059	.071 .062 .055	058 080 090	.110 .084 .372	091 117 127	.140 ,119 .083	118 154 160	.175 .136 .080
36.00	8.7 \$2.3 70.7	126 150 171	.099	169 195 240	.137	230 27k 3k1	.181 .218	281 353 439	.214 .246
41.50	6.7 42.3 70.7	176 195 233	.090 .090 .101	237 267 309	.118 .121 .144	307 350 410	.164 .170 .200	367 436 500	.210 .211 .240
44.50	8.7 42.3 70.7	215 248	.063 .063 .060	281 312	,100 ,100 ,098	 369 100	.120 .151 .156	 471 454	.106 .190 .200
47.50	8.7 42.3 70.7	192 129 234	.040 .037 .031	239 168 296	.071 .069 .053	266 211 359	.121 .116 .118	320 281 409	.148 .140 .140
50.50	8.7 \$2.3 70.7	169 181 194	.010 .001	201 219 240	.037	219 259 271	.679 .069	276 351 339	.091 .081
53.50	8.7 42.3 70.7	113 110	.011 .009 .001	 141 137	.039 .027 .21	171 150	.062 .051 .050	241 200	.080 .079 .059
56.50	8.7 42.3 70.7	079 071 050	.009 .010 .009	-,092 -,090 -,056	.030 .030 .020	101 113 079	.024 .030 .020	-,121 -,161 -,115	.044 .039 .021
59.50	8.7 42.3 70.7	039 039 029	.012 .010	049 049 039	.019 .018 301	061 071 051	.027 .017	071 093 081	.020 .023 .007

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TABLE II.- CONTINUED

(e) M,0.80.

_	Percent						Angle of	attack,									
Sta-	fuselage	_		4	?	0			2	1			5		3	10	0
(tn.)	radius	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover surface
10	8.7 42.3 70.7	0.096 .097 .081	0.032 .038 .037	0,055 .049 .045	0.018 .019 .019	0.049 .042 .045	0.038 .039 .037	0.032 .031 .039	0.068 .064 .054	0.027 .031 .031	0.095 .081 .071	0,010 .011 .008	0.117 .101 .078	-0.016 011 029	0.138 .117 .066	-0.029 039 05h	0.161 .133 .070
15	8.7 42.3 70.7	.071 .059 .048	.00A .007 .005	.030 .019 .015	011 016 010	.018 .019 .017	.011 .006 .009	.005 .007 .010	.031 .022 .023	008 0 .001	.059 .041 .033	011 020 011	.080 .061 .041	031 038 040	.100 .068 .030	048 060 079	.131 .086 .032
20	8.7 42.3 70.7	.038 .029 .011	020 021	.001 001 007	023 022	009 011 007	 011 012	030 019 029	009 018	020 027 029	.017	026 039 043	.030	-,044 -,051 -,061	.040	.050 061 083	œ
25	8.7 42.3 70.7	.020 .013 .001	-,022 -,022	005 010 017	029 030 020	011 020 020	011 021 030	031 033 035	017 012 018	032 034 035	.014 .009 -,001	033 041 049	.034 .022 -,001	-,040 -,050 -,066	.051 .030 008	041 061 079	.087 .050 008
28.50	8.7 42.3 70.7	.003 001 006	-,04? -,034 -,038	008 011 017	030 029 031	020 011 025	- 020 - 011 - 017	028 026 025	010 009 017	035 033 031	.009 .010 .008	039 038 050	.030 .020 008	038 043 057	.063 .040 001	039 056 072	.090 .060 0
31.50	5.7 42.3 70.7	.018 .007 009	037 037 037	.001 004 011	029 027 025	011 010 013	013 016 019	029 021 021	.181 .021 .037	034 032 036	.021 .013 .003	046 050 049	.040 .030 .011	046 052 068	.070 .053 .018	051 067 080	.109 .071 .018
34.50	8.7 42.3 70.7	.048 .049	038 030 012	.020 .019 .021	027 019 006	031 030 020	037 036 025	013 005 .002	.021 .022 .034	028 025 020	.044 .042 .050	049 049 046	.072 ,067 .060	069 078 089	.108 .091 .068	087 101 110	.140 .120 .079
18.00	8.7 42.3 70.7	.061 .054 .090	081 099	.017 .017 .049	056 059	049 053 029	053 039	-,050 -,056 -,041	.029	090 090 090	.066 .090	124 147 161	.101 .139	-,176 -,209 -,251	.145 .184	-,240 -,281 -,350	.179
41.50	3.7 42.3 70.7	.050 .051 .063	121 131 150	.010 .010 .010	082 091 101	029 030 040	040 046 051	072 080 100	.034 .004 .009	-,107 -,120 -,145	.059 .053 .070	179 193 230	.094 .099 .111	-,255 -,283 -,329	.150 .150 .170	329 380 428	.189 .190 .211
44.50	8.7 42.3 70.7	.024	140 150 137	020 030	110 117 139	059 076	-,060 -,067 -,067	116 129	019 020 031	149 172	.038 .037 .029	226 253	.076 .077 .071	316 344	.129 .127 .122	-,423 -,460	.161 .169 .172
47.50	8.7 \$7.3 70.7	,009 ,049 ~.003	151 151 179	037 .011 058	121 131 149	071 018 .096	079 090 100	118 050 142	037 040 050	-,140 069 -,171	.017 .009 .003	196 126 240	.050 .047 .042	-,267 -,189 -,327	.089 .085 .080	318 250 409	.134 .127 .121
50.50	8.7 47.3 70.7	-,010 ,011 ,020	===	049 053 067	120 135	078 081 045	086 045	-,110 -,114 -,131	050 061	126 130 153	001 019	-,169 -,180 -,200	.024 .011	217 238 257	.053	-,242 -,280 -,290	.083
53.50	8.7 40.3 70.7			-,040 -,036	089 081 090	-,057 -,051	060 067 056	079 071	037 038 033	087 080	001 009 008	116 108	.020 .018 .019	141 139	.050 .040 .038	180 159	.071 .061 .052
56,50	8.7 40.3 70.7	.010	050 049 079	036 029 010	050 040 030	-,037 -,031 -,019	-,050 -,040 -,001	057 048 025	-,018 -,010 -,005	061 060 030	.001 .007 .009	069 060 039	.027 .031 .029	-,081 -,081 -,049	.039 .038 .031	106 119 069	.048 .044 .036
;n.50	8.7 40.3 70.7	001 .007	021 028 017	019 011 009	010 031 021	010 013 017	008 019 015	031 027 019	-,002 -,009 -,007	-,020 -,020 -,008	.017 .010 .018	031 027 021	.025 .020 .019	051 051 039	.021 .012 001	079 081 066	.023 .014 .008

(f) M,0.82.

	Percent	_					Angle of	attack,	dagroos								
Stn- tion	f melany		4		2		0	· ·	5	4		- 6			3	9	
(in.)	ralius	Upper	Lower	Upper	Lower surface	Upper surface	Lover surface	Upper eurface	Lower surface	Upper surface	Lover surface	Upper surface		Upper surface	Lower surface	Upper surface	Lower surface
10	8.7 42.3 70.7	0.07° .070 .050	0.001	0,060 .058 .046	0.014 ,019 ,020	0.032 .036 .035	0.032 .032 .035	0.030 .030 .030	0.055 .055 .050	0,023 ,023 ,023	0.093 .083 .065	.003	0.110 .098	-0.020 017 025	0.128 .108 .065	-0.020 027 040	0.159 .128 .024
11-	8.7	.040	076 032	.029	017 022	.002	.002 008 002	.002	.022 .012	008 007 005	.056 .040	024 024 027	.075 .035 .030	040 045 052	.098 .062	-,040 -,048 -,060	.082 .035
:0	70.7 8.7 ko.3	.017 .017	025 028	.005	028	-,012 -,013	018	015 012	.001	025 025	-,015	030 033	.035	038 040 060	.045	045 052 070	.053
19	70.7 8.7 40.3	.015	033 033	026 004	032 028	-,015 -,019 -,020 -,020	-,020 -,020	020 026 022	003 003 005	030 027 032 032	-,012 .018 .009 -,003	036 029 035 045	.043 .025	038 049 059	.058	039 049 068	.072 .045 003
22,50	9.7 47.3	-,00 ²	031 076 030	-,008 .003 .005 -,005	030 025 025 035	025 025 025	020 020 020	015 015 012	.008	.015 .018	.029	030 030 040	.040	035 038 049	.060 .047 .005	040 052 068	.070 .050 003
31,50	8.7 42.3	007		.010 .005 005	035 018 018 015	-,020 -,020 -,015	018 018 012	015 012 012	.012 .008	018 018 018	.038	032 032 040	.058 .042 .022	040 040 052	.082 .055	050 058 070	.089 .060 .016
34.10	8.7 4".3	005 .032 .036	040	.022	023 010	-,002	006 0 .015	.002	028 035 040	018 018 020	.053 .055	050 052 045	.073 .068	064 070 079	.105 .090 .068	063 080 089	.135 .110 .080
₽.00	70.7 8.7 4°.3 70.7	.040 .050	07)1	.017 .018 .052	053 048	018 017	025	035 039 029	.033	075 086 095	.074	130 150 178	.105	178 209 253	.140	205 242 297	.165
11.50	R.7 42.3 70.7	.021	1M; 150	-,002 -,005	-,100 -,110 -,121	040 045 052	052 057 060	072 080 098	001 002 001	-,120 -,133 -,160	.060 .060 .070	190 208 248	.098 .100 .118	-,266 -,295 -,336	.133 .139 .158	305 340 380	.163 .162 .188
11.50	8.7 40.3 70.7	0004	172 178	030 035	123 130 148	072 087	072 072 097	113 128	-,022 -,025 -,040	165 189	.033 .035 .030	240 270	.078 .076 .072	335 370	.115 .115 .112	403	.140 .140 .140
47.50	8.7 42.3 70.7	010	179	049 .002 069	138 148 160	090 032 112	097 102 119	112 049 138	040 046 055	158 086 190	.018 .005	213 140 260	.055 .050 ,045	286 202 345	.088 .083 .076	342 262 420	.109 .105 .098
50.50	8.7 47.3 70.7	036 047 050	-,172	-,060 -,060 -,080	135 157	-,096 -,100 -,118	 105 119	110 118 130	 055 070	142 145 130	009 025	182 192 215	.025	-,229 -,247 -,265	.050	251 280 303	.065
53.50	8.7 42.3 70.7	02	105	041 041	090 090 085	065 060	-,072 -,068 -,068	072 070	038 037 039	097 093	-,009 -,013 -,012	117 111	.028 .019 .019	153 144	.042 .036 .029	- 169 - 159	.053 .049 .041
5/.50	8.7 ho.3 70.7	0% 016 000	068	030 027 002	045 041 032	050 042 012	038 028 019	050 042 020	-,019 -,016 -,007	062 053 032	003 .005 .005	072 060 043	.017 .019 .019	068 009 043	.040 .042 .035	100 103 055	.049 .050 .040
59.50	3.7 12.3 70.7	-,00 ¹	03/3	020 019 012	036 030 028	-,022 -,019 -,013	022 016 012	017 009 007	002 0	027 015 009	.012 .012 .010	034 032 023	.022 .015 .012	053 049 040	.018 .012 .005	-,062 -,062 -,049	.023 ,015 .005

TABLE II.- CONTINUED

(g) M,0.84.

	سيبو							Angle of	attack, d								
te-	cent fuse-	-	4		ē.		0		2		١.		6		8		9
ion in.)	lage	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover surface
10	6.7 42.3 70.7	0.090 .081 .072	0.018 .022 .020	0,070 .065 .060	0.032 .039 .037	0.060 .066 .065	0.061 .067 .065	0.043 .049	0.072 .073	0.032 .037 .039	0.099 .093 .072	0.012 0.018 .011	0.119 .100	-0.001 0 017	0.147 .121 .074	-0.018 020 032	0.158 .126 .080
15	8.7 42.3 70.7	.058 .050 .030	011 013 007	.049 .039 .039	.003	.032 .028 .030	.032 .030 .035	.019 .018 .019	.041 .031 .029	.001 .001 .002	.060 .050 .051	013 018 011	.079 .060	025 031 040	.109 .078 .031	039 045 059	.115 .082 .040
20	8.7 42.3 70.7	.029 .019	025	.009 .003 005	026 027	.005 .007 .004	.007	003 003 ~.007	.015	026 023 026	 0.014	031 029 040	.029	042 049 062	.039	050 059 077	.045 007
85	8.7 12.3 70.7	.020 .009 003	030 021 029	0 005 001	024 021 029	0 001 009	.001 006 001	010 018 015	.002	030 026 036	.009 0 004	030 039 041	.032 .018 009	038 051 061	.047 .029 011	0\1 059 07\	.059 .034 013
28.50	8.7 42.3 70.7	.010 0 005	031 029 036	.005	020 020 017	.010 .001 007	°.∞3	020 019 018	008 009 004	020 020 021	.027 .019 0	030 033 041	.039 .028 .005	039 047 053	.059 .033 003	039 048 066	.064 .041 0
31.50	8.7 42.3 70.7	.018 .009 002	039 028 027	.009 .008 010	017 019 027	.009	.009 .005 .017	018 017 018	0 001 .001	018 018 019	.032 .024 .017	031 030 039	.046 .032 .017	038 041 032	.071 .049 .019	030 043 058	.073 .053
34.50	0.7 42.3 70.7	.060 .060	011 008 0	.042 .042	+.006 .009 .018	.060 .060	.009 .030 .035	.001 .003 .010	.029 .032 .042	011 010 001	.060 .057 .060	028 035 030	.079 .069 .066	016 051 050	.120 .100 .085	055 069 069	.133 .114 .088
38.00	8.7 \$2.3 70.7	.070 .071 .101	070 086	.039 .040 .069	038 041	001 .001 .019	007 .018	038 039 027	.029	063 069	.079	111 131 154	.110	-,156 -,184 -,227	.151 .197	189 224 281	.170
41.50	8.7 42.3 70.7	.052 .053 .061	131 140 160	.017 .018 .019	084 095 105	019 019 029	020 021 029	061 072 091	.004 .002 .007	124 139 163	.051 .050 .060	180 199 235	.094 .094 .110	238 267 309	.153 .156 .173	279 319 359	.180 .178 .201
44,50	8.7 \$2.3 70.7	.019	-,161 -,170 -,199	019 026	110 120 143	050 069	046 054 051	109 127	020 022 038	177 201	.026 .024 .018	243 272	.065 .067 .061	320 353	.127 .129 .123	380 314	.152 .150 .150
17.50	8.7 \$2.3 70.7	.007 .051 012	166 179 200	030 .020 050	127 131 152	061 004 087	-,061 -,072 -,089	098 035 130	027 032 045	152 076 188	.029 .018 .008	222 141 265	.050 .042 .041	300 211 358	.100 .100 .091	321 278 442	.119 .110 .109
50.50	6.7 \$2.3 70.7	010 017 029	159 170	050 049 060	126 140	070 071 090	072	-,100 -,104 -,125	047 060	139 144 161	004 017	190 200 220	.017	228 245 262	.062 .052	-,270 -,301 -,329	.080
53.50	8.7 42.3 70.7	001 001	090 086 083	022	070 070 069	047 045	048 045	062	027 028 027	081 082	.010 .009 .001	-,110 -,101	.027 .020 .019	130 124	.060 .051 .047	150 140	.069 .058 .050
56.50	8.7 42.3 70.7	.008 .001	061 051 040	011 010 .001	041 036 021	-,029 021 -,006	029 020 011	038 029 011	018 010 .010	041 033 024	.009 .009	060 051 040	.015 .011 .010	070 062 041	.040 .040 .034	077 083 052	.046 .042 .036
59.50	8.7 42.3 70.7	0 0 -,001	030 028 021	009 009 009	-,021 -,021 -,022	011 009 008	010 010 009	025 017 013	001 .005 011	027 023 017	.009	010 039 030	.010	018 017 039	.022	066 069 051	.019 .009 -,006

(h) M,0.86.

		1					Angl	e of atta	ck, degree						
Sta-	Percent				e		0		5	1	¥	1			3
tion (in.)	fusciage redius	Upper surface	Lower surface	Upper surface	Lower surfece	Opper surface	Lower surface	Upper surface	Lower , surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface
10	8.7 42.3 70.7	0.101 .089 .082	0.033 .040 .033	0.089 .074 .069	0.058 .060 .051	0.069 .059 .061	0.059 .061 .051	0.039 .048 .048	0.071 .070 .061	0.027 .030 .030	0.090 .090 .070	.007 .004	0.10h .091 .069	0.010 .001 0	0.153 .138 .089
15	8.7 42.3 70.7	.060 .052 .040	.003 001 .001	.051 .045 .039	.011 .008 .011	.030 .030 .032	.023 .019 .020	.010 .012 .013	.038 .029 .073	002 002	.053 .040 .037	029 029 030	.065 .043 .034	013 029 030	.119 .082 .050
20	6.7 42.3 70.7	.029 .020 .005	017 020	.020 .007 .002	017 020	.009 .007 .001	.007	006 003 004	.009	012 011 019	.027	030 030 036	.031	030 035 048	.057 .011
25	6.7 42.3 70.7	.024 .013	021 019 019	.010 .003 002	021 019 022	001 002 006	0 001 006	010 016 017	001 0 .003	017 023 025	.022 .013 007	038 042	.030 .019 001	028 038 050	.060 .049 .007
28.50	8.7 42.3 70.7	.022 .017 .004	021 010 020	001 0 009	018 020 026	008 007 009	008 007 009	020 020	0 0 009	019 011 015	.023 .019 .008	039 041 041	.029 .020 007	028 035 045	.069 .050 .009
31.50	8.7 k2.3 70.7	.027 .011 .002	011' 007 018	.009 .003 002	021 019 018	003 007 009	006 007 010	010 010 010	.010 .009 .009	018 010 011	.039 .026 .021	- 039 - 01 - 050	.034 .021 .011	026 031 040	.078 .059 .024
34.50	8.7 \$2.3 70.7	.060 .069 .063	001 .008 021	.048 .050 .052	.011 .029	.031 .036 .044	.023 .034 .040	.018 .022 .029	.043 .050	004 002 .003	.069 .060 .068	039 030 030	.069 .063 .065	039 041 042	.122 .107 .087
38.00	6.7 42.3 70.7	.080 .082 .113	042 050	.054 .053 .084	028	.012 .012	.012	027 030 013	.047 .068	060 030 073	.088 .121	117 132 152	.112 .149	150 178 221	.160 .203
41.50	8.7 42.3 70.7	.060 .060 .066	103 105 126	.033 .031 .031	068 080 091	017 019 029	023 030 036	069 076 091	.008 0 .007	114 127 151	.060 .059 .061	180 198 230	.099 .100 .117	219 250 286	.171 .172 .197
44.50	8.7 42.3 70.7	.028 .019	139 148 179	005 011	107 111 136	- 058 - 069	055 060 079	111 130	021 022 038	175 196	.032 .031 .029	348 379	.071 .072 .070	412 441	.150 .154 .149
47.50	8.7 42.3 70.7	.049 013	166 164 199	029 .023 049	131 142 152	071 011 098	082 092 107	120 050 151	040 050 057	179 100 209	.011 .010 ~.001	265 176 310	.013 .034 .027	330 231 387	109 100 098
50.50	8.7 42.3 70.7	016 013 031	149 169	041 046 058	128 112	080 080 099	090 101	120 127 140	059 069	158 161 187	010 027	-,226 -,239 -,260	.009	320 349 368	.068 .05k
53.50	8.7 42.3 70.7	008 010	085 084 080	022 021	072 071 070	048 040	- 050 - 050 - 050	078 073	037 040 040	077 062	003 001 009	126 119	.012 .008 .009	130 120	.060 .053 .048
56.50	8.7 42.3 70.7	001 0 010	050 030 030	011 009 001	039 039	026 029 011	026 020 029	048 039 022	025 020 011	049 043 020	.008 .011 .012	071 069 046	.005 .010 .006	060 060 039	.049 .042 .039
59.50	6.7 \$2.3 70.7	009 001 002	030 029 023	007 002 001	018 017 023	019 015 013	020 016 015	022 021	010 010 011	021 027 019	.022	093 049 040	001 009 011	037 039 026	.031 .022 .011

TABLE II.- CONTINUED

(i) M,0.88.

						.	As	gle of at	teck, degr						
Ste-	Percent		À		6		0	5			<u> </u>		6		8
tion (in.)	fuselage radius	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface
10	8.7 \$2.3 70.7	0.108 .092 .092	0.033 .041 .033	0.087 .075 .092	0.042 840. 440.	0.068 .068 .062	0.068 .062	0.052 .057 .058	0.080 .078 .079	0.038 .040 .043	0.105 .096 .078	.020 .023	0.128 .117 .005	0.015 .013 .007	0.168 .140 .098
15	8.7 42.3 70.7	.068 .060 .045	.008	.042 .042 .038	.006	.030 .030 .830	.030 .020 .023	.020 .020 850	.044 .038 .043	.00Å .00°	.069 .055 .043	010 013 010	.092 .070 .050	013 020 029	.118 .097 .060
70	8.7 42.3 70.7	.025 .020 .010	022	.015 .009 .002	.010 .015	.015 .015 .009	.015	.005	.018	00t 010 012	.030	025 028 030	.043	025 038 048	.055 .015
:5	6.7 42.3 70.7	.024 .010	020 022	.009 .002 0	012 015 020	.009 .005 012	.009 .005	014 012	.005 .004 003	010 015 020	.033 .018 .010	018 030 032	.045 .035 .012	022 035 043	.065 .045 .015
23.50	8.7 \$2.3 70.7	.016 .014 .005	022 018 022	.015 .015 .005	010 016 015	.015 015 005	0.000	010 008 008	.008 .015 0	025 022 020	.022 .015 .002	020 027 033	.040 .030 .005	020 027 040	.069 .050 .010
31.50	8.7 42.3 70.7	.022 .015 .005	015 015 015	.022 009 .002	010 015 0	.010 0 .005	.015 .002 .009	002 002	.018 .013 .015	018 015 015	.032 .025 .015	020 028 035	.015 .035 .016	026 026 040	.082 .055 .023
34.50	8.7 42.3 70.7	.078 .072 .072	.005 .012 .029	.060 .060 .060	.016 .032 .042	860. 860. 030.	.035 .042 .058	.025 .035 .042	.049 .055 .063	.002 .002 800	.060 .063 .065	006 015 014	.095 .090 .074	013 015 015	.135 .122 .102
39.00	5.7 42.3 70.7	.090 .095 .120	035 050	.060 .063 .058	œ6 o	.022 .032 .050	.023	010 015 005	.055	065 075 080	.083 .124	100 116 115	.125 .164	122 152 193	.1 ⁹ 2 .220
¥1.50	8.7 42.3 70.7	.058 .065 .070	110 120 139	.032 .025 .021	075 090 095	020 020 028	020 020 032	069 073 087	.010 .005 .010	130 135 160	.060 .053 .070	175 190 225	.115 .115 .132	222 250 275	.163 .163 .166
14.50	8.7 42.3 70.7	.070	160 165 195	013	112 127 143	060 073	052 066 07°	112 130	018 000 030	-,186 -,210	.037 .032 .025	250 230	.083 .089 .078	325 355	.140 .140 .155
47.50	8.7 12.3 70.7	00? .045 020	195 195 228	033 .070 093	140 153 169	0°0 020 100	050 094 110	-,11° -,05? -,143	033 042 052	193 110 230	.015 .005	275 190 320	640 640 640	325 325 385	.107 .100 .093
50.50	8.7 42.3 70.7	022 035 039	185 205	050 055 079	149 161	092 092 103	0% 10°	-,122 -,130 -,149	057 073	- 197 - 197 - 222	013 025	295 312 335	.010	- 3 - 105 - 130	010. 8co.
53.50	3.7 47.3 70.7	003	0% 0% 0%	026 028	075 075 073	04 s	045 045 047	070	030 033 030	105 097	010 014 015	130 115	.02) .020 .013	179 179	.055 .050 .040
36.50	3.7 42.5 70.7	0 .004 .010	050 045 045	015 015 0	045 039 030	025 020 010	01 ² 01 ⁵ 010	036 025 012	016 010 0	057 045 023	.010 .010	.060	025 025 028	055 050 025	.050 .049 .049
59.50	9.7 42.3 70.7	0	075 025 020	0	010 010 010	010 010	070 010 010	000 015 010	003 010	029 013 018	.012 .009	025 020 015	.020 .015 .012	020 025 015	.035 .030 .015

(j) M,0.90.

							Angle of	ittack, de	Brane						
Sta-	Percent fuselage		4		-2		0		2				G .		3
tion (in.)	radius	Upper murface	Lower	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	surface	Upper surface	Lower surface	Upper surface	Lover surface
10	8.7 42.3 70.7	0.0% .001 .070	0.011	0.092 .030 .078	0,049 .050 .050	0.071 .066 .063	0.057 .354 .057	0.056 .060 .061	0.083 .083 .000	0.011 .000 .003	0.110 .103 .090	0.028 .030 .124	0.138 .123 .092	0.000 .003 000	0,156 ,133 ,384
15	8.7 42.3 70.7	.050 .040 .039	017 020 014	.051 .041 .018	.020 .018 .017	.029 .031 .018	.032 .018 .018	,030 .031 .033	.054 .050 .045	,014 ,019 ,020	.072 .063 .ძეს	001 001 008	.070 .070	021 027 039	.117 .452 .045
50	8.7 42.3 70.7	.016 .010 003	034	.007 .008 .001	015 019	0 -,009 -,002	0	009 007 010	.007	019 019 020	.020 ,011	020 021 029	.048 .019	-,037 -,046 -,051	ر المار. ولادان.
න	8.7 42.3 70.7	.009 001 006	032 029 037	.009 002 009	020 019 020	-,001 -,010 -,005	011 018 015	013 027 035	301 -:005 -:012	019 007 009	.014 .011 002	00 004 030	درن. البان. 16ن.	زود آبان آزی	.თა .თა ~.001
28.50	8.7 42.3 70.7	.011 .005 -,005	-,025 026 031	.004 001 009	026 019 021	005 001 005	010 005 006	078 071 019	010 010 008	029 031 041	.010 .002 019	029 027 033	.034 .039 .001	027 039 052	.050 .037 033
31.50	8.7 \$2.3 70.7	.021 .011 001	026 020 020	,009 ,001 ,005	017 011 007	001 0 000	002 001 003	018 018	-,002 -,002	001 00 019	.020 .017 U	020 020 030	.041 .031 .038	08 042	ورق. بارق. 019.
34,50	8.7 42.3 70.7	.054 .059 .058	-,010 0 ,010	.056 .054 .063	.013 .028 .037	.039 .040 .000	.02k .029 .070	.017 .018 .029	. 045 050 000	000 0 ,000	.059 .060 .061	00s	.093 .087 .081	011 021 020	,129 ,109 ,052
38.00	6.7 42.3 70.7	.071 .077 .110	057 066	.060 .054 .083	005 001	.021 .071 .049	.000	020 029 014	.046	073 030	.081	09) 099 129	.152	129 156 201	.174
41.50	8.7 42.3 70.7	.044 .050 .051	- 132 - 139 - 157	.023 .023 .021	066 072 079	010 016 015	027 031 037	039 039 080	.027 .011 .021	-,120 -,131 -,152	.051 .050 .064	150 178 210	.120 .121 .140	230 255 293	.160 .161 .137
44.50	8.7 42.3 70.7	.035	180 107 212	.011 020 029	111 119 139	019 058 070	063 063 087	071 115 130	-,020 -,019 -,029	133 134 207	.030 .030 .020	190 237 260	.039 .091 .087	213 321 349	.130 .131 .129
47.50	8.7 \$2.3 70.7	019 .034 031	-,230 -,230 -,258	-,063 -,147	147 155 170	018 108 097	109 118 100	130 058 160	036 040 057	208 123 240	.009 001 009	271 181 317	.052 .049 .043	342 245 400	.081 .081
50.50	8.7 42.3 70.7	034 039 057	261 251	062 069 081	175 193	097 101 118	-,119 -,132	157 164 188	054 079	-,253 -,264 -,291	025	327 340 361	.019 .341	-,420 -,420 -,500	.003
53.50	8.7 42.3 70.7	021 023	-,121 -,120 -,117	030 033	079 073 071	047	059 850,- 850,-	~.084 ~.080	041 047 041	130 120	012 021	269 250	.012	418 388	.042 .031 .021
56.50	8.7 42.3 70.7	015 010 001	-,065 054 045	016 011	===	025 017 009	035 025 019	- 046 - 034 - 015	020 010 007	059 050 023	.002	058 051 030	.020 .019 .001	070 070 052	.031 .028 ,020
59.50	8.7 42.3 70.7	002 004	026 022 019		===	009 009 005	009 011 012	020,- 710,- 800,-	005 005	029 021 015	.001	- 013 - 011	.018 .021	029 029 020	.019 .008 .012

TABLE II.- CONCLUDED

(k) M,0.92.

							Angle of	attack, de	E.cos						
Ste-	Percent fuselase		4	-	-2		0		2		١		5		7
(in.)	redius	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Opper surface	Lower surface	Opper surface	Lower surface	Upper surface	Lower surface	Opper surface	Lower surface
10	8.7 12.3 70.7	===	===	===	===	===	===	===	===		===	===	===	===	===
15	8.7 \$2.3 70.7	===	===	===	===	===	===		===	===	===	===		===	===
20	8.7 42.3 70.7	===	===	355	===				===			===	===	===	
න	8.7 42.3 70.7	===	===	===	===	===	===		===	===	===	===	===	===	===
28.50	8.7 42.3 70.7		===	===	===	===	===		===			===	===	===	===
31.50	8.7 \$2.3 70.7	===	===	===	===	===	===	===	===	===	===	===	===		===
34,50	8.7 \$2.3 70.7	===		===	===		===						===	0,100 ,100 ,100	0.213 .203 .189
38.00	8.7 42.3 70.7		===					111	111					.003 .018 .050	-,260 -,304
¥1,50	8.7 \$2.3 70.7	===	===	===	===	===	===	===	===	===	===	===	===	192 210 246	.140 .145 .165
44.50	8.7 \$2.3 70.7	===	===	355	===	===		===	===	===			===	272 300	.108 .112 .108
17.50	8.7 \$2.3 70.7	===	===	===	===	===	===	===	===	===	===	===	===	300 205 356	.067 .054 .050
50.50	8.7 \$2.3 70.7	===	===	===		===	===	===	===	===	===		===	363 382 408	.206 .020 .002
53.50	42.3 70.7	===		===	===		===	===	===	===		===	===	-,405 -,420	.008 002 020
56.50	42.3 70.7	.007	046 040 .024	015	055 049 035	018	037 030 018	018	027 020 018	033	013 009 010	070	.010 .012 .006	197 172 120	.005
59.50	8.7 \$2.3 70.7	.010 .010	012 010	012 010 010	025 020 020	020 015 012	020 015 012	018 013 010	002 005 008	020 020 016	.002 005 008	016 016 016	005 010	025 025 020	- 008 - 005 - 010

(1) M,O.94.

							Angle of	attack, de	grees						
Ste-	Percent fuselage		•		-2		0		2				6		7
tion (in.)	redius	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface
10	8.7 42.3 70.7	0.117 .104 .098	0.050 .050 .048	0.099 .091 .083	0.050 .052 .053	0.080 .081 .072	0.071 .071 .069	0.064 .065 .063	0.089 .089 .081			===	===	0,001 .023 .021	0.155 .139 .101
15	8.7 42.3 70.7	.069 .060 .052	.011 1002 .011	.055 .050 .046	.014 .012 .019	.039 .033 .034	.033 .027 .027	.028 .028 .029	.050 .011 .039	===	===	===	===	004 010 004	.110 .084 .059
20	8.7 \$2.3 70.7	.021 .019 .004	018 026	001 009 011	030 028	001 005 001	005	004 003 003	.018	===	===	===	===	026 029 040	.049
25	8.7 42.3 70.7	.016 .005 006	022 020	003 015 023	038 039 034	013 015 017	014 020 023	010 011 016	.008 .007 0		111		===	037	.056 .039 .011
28.50	8.7 \$2.3 70.7	.023 .021 .012	0 008 010	010 010 019	028 020 027	.002	002 0	017 016 011	.001 0 001			===	===	009 010 020	.060 .049 .019
31.50	8.7 \$2.3 70.7	.037 .030 .019	.010 .011 .010	.003 001 004	013 009 008	.010	.011	.001 .002 .007	.013 .011 .018	===	===	===	===	.004	===
34.50	8.7 42.3 70.7	.078 .079 .079	.030 .031 .049	.060 .059 .060	.039 .031 .050	.051 .049 .059	.051 .049 .059	.046 .048 .054	.062 .065 .074	===		===		===	===
39.00	8.7 42.3 70.7	.097 .099 .128	017 024	.068 .061 .100	005 002	.032 .035 .039	.029	.009 0 .018	.069	===	===	===	===	===	===
¥1.50	8.7 42.3 70.7	.061 .067 .068	089 092 -,108	.035 .034 .033	064 072 084	012 020 023	~.020 026 028	048 051 062	.023 .019 .021	===	===		===	===	===
44.50	8.7 42.3 70.7	.017	136 140 165	019 024	132 119 140	069 079	069 071 085	104 119	020 019 031	===	===	===	===	===	===
47.50	8.7 \$2.3 70.7	010 .049 028	182 080 209	058 .003 078	172 180 195	109 036 133	113 127 133	151 071 179	064 073 081	===	===	===	===	===	===
50.50	8.7 42.3 70.7	051 053 073	-,240 -,254	111 121 135	-,231 -,254	167 173 190	175 197	213 222 241	137 145	===		===		===	===
53.50	8.7 42.3 70.7	064 076	266 276 290	106 -,111	270 276 280	179 179	-,188 -,190 -,199	220 220	-,080 -,088 -,089	===	===	===	===	===	===
56.50	8.7 42.3 70.7	037 034 030	137 120 107	052 050 029	-,100 -,065 -,070	047 041 032	-,055 -,049 -,039	057 047 030	030 020 018	120	040 037 049	201	-,044 ,044 ,053	-,245	045 047 066
59.50	8.7 42.3 70.7	002 003 004	002 002	010 012 007	010 012 014	010 009 007	010 009 007	008 005 008	0	019 019 018	007 018 018	072 071 075	026 031 049	130 130 129	041 054 075

TABLE III. - PRESSURE COEFFICIENTS ON A FUSELAGE IN COMBINATION WITH A WING HAVING A SWEEPBACK ANGLE OF 35° AND AN ASPECT RATIO OF 6.

(a) M,0.40.

Sta-	Percent	ļ	,			Ang	tle of attac	ik, degrees					
tion (in.)	fuselage railus	Upper surface	Lower	Upper surface	Lover	Upper eurface	Lover	Upper surface	Lover	Upper surface	Lover	Upper	Lover
10	8.7 42.3 70.7	0.081 .074 .061	0.006 .006 .006	0.068 .061 .052	0.019 .019 .026	0.0A2 .0A2 .039	0.035 .035 .035	0.035 .035 .035	0.068 .061	0.010 .010	0.071 .068	0.003 .003 003	0.100 .084
15	8.7 42.3 70.7	.052 .042 .029	023 023 023	.035 .032 .029	.003 003 .003	.010 .010	.006	.003 .003 .003	.035 .019	013 013	.039 .035 .019	003 026 023 026	.068
20	8.7 \$2.3 70.7	.029	.003 .003 .003	.010 .006 .003	029	003 003 013	010 010 013	023 023 026	.019 .003 .003	013 029 029	.019 .010 .003	026 029 029 052	.029 .042 .035 .006
25	8.7 42.3 70.7	,019 ,006	029 029 006	.010	029 029 029	013 013	013 019 023 026	026 026	.003	029 029	.003 .003 006	035 042	.035
28.50	70.7 8.7 \$2.3 70.7	019 .013 .006	029	013 .006 .003 .003	029 029 029 029	-,023 -,013 -,016	026 013 019 026	029 026 026	013 .003 .003	035 052 052	.013	055 035 035 005	003 .042 .029
31.50	8.7	.003 .019 .010	035 045 042	.003 .003 .003	029 029 029 026	013 019 019 013	026 029 023	026 026 026 026	003 006 003	052 042 042	006 .013 .003 .003	058 058	.003
34.50	70.7 8.7 12.3 70.7	.042	042 061 052 052	.003	029 029	013 003 003 003	023 023	026 026 026	.026 .003	042 045 046	.029	061 068	.006
38.00	8.7 42.3 70.7	.019 .035 .035 .068	052 .235 094	.010 .006	029 052 052 052	003 026 026 010	013 026 026 013	026 055 052	.010	084 090 094	.019 .035 .035 .068	087 119 126 158	.035 .074 .074 .100
41.50	8.7 42.3	.035 .035 .052	094 100 123 152	.035 .006 .010	052 061 077 091	010 029 029 042	013 032 035 045	042 061 061 087	.035 .003 .003	-,09A -,110	.068 .035 .035	-,132 -,158	.074
kk.50	70.7 8.7 42.3	.050 .019 .013 .019	100 126	013 013	077 087	045 058	045 052 087	087 077 077 094	003 010	303 077 119	.029	197 152 158	.100 .068
17.50	70.7 8.7 12.3 70.7	.019 .019 .035 .003	155 094 100 123	023 013 .019 029	119 068 068	061 068 013 061	087 055 058 061	094 006 006	029 013 013 026	155 058 058 126	.003 .003 .003	190 119 084 158	.052 .084 .045 .042
50.50	8.7	.003	123 055 087 031	029 023 023	640 029 061 061	-,061 -,045 -,045 -,052	061 026 035 358	-,061 -,061 -,061	026 026 029	126 087 087 094	.019	158 100 100 116	.052
53.50	70.7 8.7 L2.3 70.7	.003	061 061	029 003 0	045 042	052 029 029	032 032 032 029	035	029 013 013 013	-, 061	013 .003 .003	061	.019 .029 .023 .013
56.50	8.7 • 12.3 70.7	003 003 003	0f1 058 058 058	016 016 016	032 068 068	029 029 029	029 035 035 035	032 029 029 022	013 026 026	052 045 029	013 013 013	061 058 055 039	.013 .013 .013
57.50	8.7 42.3 70.7	003 023 023	055 045 045	016 023 023 029	039 029 024 032	072 016 022	05.1 05.1 03.2	032 032 032	026 019 019 032	029 032 024 032	013 0 0	039 029 029 035	013 013 026
Sta-	Percent fuseinge railus		ë	1	0 Lover		le of attac	1	Lover	1	6	1	В
(in.)		Upper surface	1.over	Upper surface	surface	Upper aurisce	iover auriace	Upper ourface	aurfaco	Upp⊷r surface	Lover surface	Upper surface	Lover surface
10	8.7 42.3 70.7	-0.019 017 035	0.126 .004 .061	-0.006 021 058	0.145	032°							
15	8.7 42.3 70.7				.050	039 071	0.168 .132 .061	-0.039 065 100	0.216 .158 .058	-0.003 041 069	0.073 .210 .085	-0.029 09A 100	0.294 .117 .042
20		035 035 042	.087 .061 .029	058 039 071	.103 .040 .042	035 058 010	.061 .061 .035 .077 .026	065 100 042 074 100	.158 .058 .174 .119 .023	-0.003 041 069 066 060 288	.232 .157 .050	-0.029 994 100 039 116 116	0.294 .197 .042 .245 .155 .013
	8.7 12.3 70.7	039 045 045	.061 .061 .029 .061 .029	058 039 071 045 061 090	.103 .040 .042 .081 .05d	-,035 -,058 -,070 -,042 -,065 -,077	.055 .061 .035 .077 .026 .123 .065	065 100 042 074 100 042 074 103	.158 .058 .174 .119 .023 .135 .094 ~.003	-0.003 041 069	.232 .157	-0.029 09A 100 039 116 116 126 126	0.294 .197 .042 .245 .155 .013 .219 .132 019
25	8.7 42.3 70.7 8.7 42.3 73.7	-,039 -,045 -,045 -,045 -,047 -,061 -,074	.061 .029 .061 .029 .061 .029	058 039 071 045 061 090 098 071 690	.103 .040 .042 .081 .051 0	035 058 030 042 065 07 098 081 07	.132 .061 .035 .097 .026 .123 .068 .068 .069 .100 .065 005	065 100 042 074 100 042 074 103 065 077 103	.158 .058 .17k .119 .023 .135 .094 ~,003 .126 .077 -,013	-0.003 041 009 006 006 006 006 006 006 006 009	.232 .157 .050 .201 .138 .022 .191 .122 .003	-0.029 09A 100 039 116 116 055 126 126 126 126	0.294 .197 .042 .265 .155 .913 .219 .132 019
28.50	8.7 12.3 70.7 8.7 12.3 73.7 8.7 12.3 70.7	039 045 065 061 074 052 061 077	.087 .061 .029 .061 .029 0 .061 .029 010 .061 .029 003	058 039 071 045 061 050 056 071	.103 .040 .042 .081 .051 0	035 058 090 042 065 047 098	.055 .061 .035 .077 .026 .123 .065	065 100 042 074 100 042 074 103 065 097	.158 .058 .174 .119 .023 .135 .094 003	-0.003 0k1 069 066 066 066 066 072 082 082 084 091 091	.232 .157 .050 .201 .135 .022	-0.029 09A 100 039 116 116 055 126 126	0.294 .197 .042 .265 .155 .013 .219 .132 019
	8.7 12.3 70.7 8.7 12.3 70.7 8.7 12.3 70.7 8.7 12.3 70.7	-,039 -,045 -,045 -,047 -,051 -,074 -,052 -,061 -,077 -,074 -,074 -,074	.087 .061 .029 .061 .029 0 .061 .029 .001 .061 .029 .003	-, 058 -, 039 -, 071 -, 045 -, 061 -, 050 -, 071 -, 057 -, 071 -, 081 -, 097 -, 094 -, 113	.103 .040 .042 .081 .05d 0 .068 .035 010 .048 006	035 058 030 042 065 07 098 081 07	.132 .061 .035 .077 .026 .123 .068 0 .100 .065 006 .126 .068 0	065 100 042 074 100 042 074 103 065 077 103	.158 .058 .174 .119 .023 .094 -,003 .126 .077 013 .132 .094 029	-0.003 -041 -069 -066 -066 -066 -072 -089 -069 -069 -069 -091 -091 -091 -091 -091 -091 -091	.232 .157 .050 .201 .138 .022 .191 .122 .003 .213 .138 .003	-0.029 99A 100 039 116 116 059 126 126 126 126 126 126	0.294 .197 .042 .219 .199 .013 .219 .132 019 .206 .116 029
28.50	8.7 12.2 10.7 8.7 12.7 12.7 12.3 10.7 12.3 10.7 12.7 12.7 12.7 12.7 12.7	039045047061074052061077074074094103126	.067 .061 .029 0 .061 .029 0 .061 .029 010 .061 .029 003 .061 .029 .093	058039071045061006070058071070071097097100113111115161	.103 .090 .042 .081 .05d 0 0 .068 .035 010 .048 006 .090 .090 .048 0	035 058 050 065 065 081 075 075 074 100 077 113 129 129	.132 .061 .077 .026 .028 .028 .028 .069 .069 .069 .069 .069 .069 .069 .069	-, 065 -, 100 -, 042 -, 074 -, 100 -, 042 -, 074 -, 103 -, 065 -, 077 -, 103 -, 103 -, 126 -,	.158 .058 .174 .119 .023 .135 .094 003 .126 .077 013 .132 .04 029 .138 .034 003	-0.003 -041 -060 -060 -060 -060 -060 -072 -072 -082 -082 -091 -091 -082 -013 -013 -013 -013 -013 -013 -013 -013	.2 32 .157 .050 .201 .138 .022 .191 .122 .003 .213 .003 .216 .156 .028	-0.029 -0.700 -0.000 -0.116 -0.116 -0.0000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.0000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.0000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.0000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.0000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.0000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.0000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.0000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.0	0.294 197 042 295 199 199 199 199 199 199 199 199 199 1
28.50 31.50 34.50 38.00	8.7 12.7 10.7 8.7 10	-039 -049 -049 -061 -074 -052 -061 -077 -074 -074 -074 -074 -074 -074 -074	.087 .061 .029 0 .061 .029 0 .061 .029 .061 .029 .093 .093 .093 .093 .093 .093 .093 .09	058039071045061070071085071097097097097097103113113115127275145	.103 .040 .042 .081 .054 0 .068 .035 .010 .081 .086 .090 .086 .090 .086 .090 .086 .090 .086 .090 .090 .090 .090 .090 .090 .090 .09	-035 -098 -090 -082 -065 -081 -097 -097 -097 -097 -097 -113 -126 -169 -169 -126 -169 -274 -378	.12 .061 .077 .027 .027 .027 .027 .028 .060 .060 .060 .060 .060 .060 .060 .06		1158 .058 .058 .078 .029 .023 .003 .126 .077 .013 .132 .024 .024 .024 .024 .024 .024 .024 .02	-0.003 041 060 060 066 066 072 072 082 072 082 094 094 094 094 094 094 094 094 094 100	.232 .157 .050 .201 .138 .022 .191 .122 .003 .213 .003 .216 .150 .026	-0.029 -0.099 -0.099 -0.116 -0.116 -0.126 -0	0.294 1177 0.042 2.255 1397 -019 132 -019 206 -116 -029 -213 -029 -029 -029
28.50 31.50 34.50	8.7 10.7 1	-039 -0-5 -0-5 -0-7 -0-7 -0-7 -0-7 -0-7 -0-7	.067 .061 .062 .061 .062 .061 .061 .061 .061 .061 .061 .061 .061	058039071061061070071070071070071077071081077113113113113127225127237237	.103 .090 .042 .081 .05d 0 0 .068 .035 010 .048 006 .090 .090 .048 0	055 070 042 042 047 061 077 073 077 113 126 169 126 274 274 275	.12 .061 .075 .076 .026 .023 .069 .069 .069 .069 .069 .069 .069 .069		1158 .058 .058 .174 .112 .023 .024 .034 .077 .077 .077 .077 .077 .077 .074 .024 .024 .024 .024 .029 .223 .223 .223 .221 .223 .221 .223	-0.003 -0.01 -0.009 -0.	.2 92 .157 .050 .201 .138 .022 .191 .122 .003 .213 .003 .216 .003 .216 .022 .222 .085 .085 .226 .248 .248	-0.029090090090100090116116116126	0.294 197 042 295 199 199 199 199 199 199 199 199 199 1
28.50 31.50 34.50 38.00	8.7 10.7 1	-039 -045 -045 -045 -046 -071 -074 -074 -074 -074 -074 -074 -074 -074	.067 .060 .020 .061 .020 .061 .020 .061 .061 .061 .061 .061 .061 .061 .06	058039071045061070071085071097097097097097103113113115127275145	.103 .049 .081 .054 0 .068 .035 010 .081 .006 .006 .006 .006 .006 .006 .006 .00	-035 -098 -090 -082 -065 -081 -097 -097 -097 -097 -097 -113 -126 -169 -169 -126 -169 -274 -378	.12 .061 .072 .073 .076 .076 .076 .076 .076 .075 .075 .075 .075 .076 .077 .077 .077 .077 .077 .077 .077		1158 .058 .058 .174 .119 .023 .034 .003 .126 .077 .013 .132 .04 .024 .024 .024 .024 .024 .158 .158 .158 .158 .158 .158 .158 .158	-0.003 -0.01 -0.006 -0.006 -0.006 -0.006 -0.006 -0.007 -0.006 -0.	2.22 1.52 1.52 1.50 2.00 2.01 1.13 1.02 2.00 2.11 1.13 1.13 1.13 1.13 1.13 1.13 1.13	-0.000	0.294 1.042 2.49 .013 .013 .013 .019 .019 .019 .019 .021 .021 .021 .021 .022 .023 .023 .023 .023 .023 .023 .023
28.50 31.50 34.50 38.00	8.7 12.3 70.7 12.3 70.7 12.3 12.3 12.3 12.3 12.3 12.3 12.3 12.3	-039 -059 -059 -059 -051 -051 -051 -051 -051 -051 -051 -051	.067 .061 .061 .061 .061 .061 .061 .061 .061	- 0.09 - 0.09 - 0.07 - 0.05 - 0.05 - 0.07 - 0.05 - 0.07 - 0.07	.103 .000 .042 .051 .051 .051 .055 .035 .035 .048 .068 .068 .066 .068 .068 .068 .068 .06	-078 -079 -079 -079 -079 -079 -079 -079 -077 -079 -079	.19		1158	-0.001 -0.001 -0.001 -0.000 -0	.2 92 .157 .050 .201 .138 .022 .191 .122 .003 .213 .003 .216 .003 .216 .022 .222 .085 .085 .226 .248 .248	-0.000	0.294 1.042 2.152 .013 .013 .013 .019 .019 .029 .020 .020 .020 .020 .029 .029 .02
28.50 31.50 34.50 38.00 41.50 47.50	8.7 12.3 70.7 12.3 70.7 12.7 12.7 12.7 12.3 70.7 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3	-039 -059 -059 -059 -051 -051 -051 -051 -051 -051 -051 -051		- 0.09 - 0.071 - 0.01 - 0.01 - 0.02 - 0.02 - 0.02 - 0.03 -	.103 .000 .002 .002 .003 .003 .003 .003 .0	-078 -079 -079 -079 -079 -079 -079 -079 -079	.192 .061 .077 .086 .097 .086 .086 .086 .086 .086 .086 .086 .086		1158 .008 .174 .119 .003 .178 .119 .003 .126 .004 .004 .003 .126 .003 .127 .003 .128 .003 .003 .003 .003 .003 .003 .003 .00	-0.003 -0.01 -0.006 -0.006 -0.006 -0.006 -0.006 -0.007 -0.006 -0.	2.92 1.57 .050 201 1.02 1.02 1.12 1.03 2.13 1.03 2.14 1.05 2.15 1.05 2.15 2.15 2.15 2.27 2.27 2.27 2.27 2.27 2.27 2.27 2.2	-0.020 -0.030 -0.030 -0.030 -0.030 -0.030 -0.030 -0.026 -0	0.794 .197 .042 .295 .013 .913 .913 .913 .914 .027 .027 .297 .297 .297 .297 .297 .299 .299 .2
28.50 31.50 34.50 38.00 41.50 41.50 50.50	8.7 12.3 10.7 12.3 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7	-0.99 -0.90		- 0.09 - 0.071 - 0.043 - 0.071 - 0.043 - 0.071 - 0.041 - 0.070 - 0.071	.103 .000 .042 .051 .051 .051 .055 .035 .035 .048 .068 .068 .066 .068 .068 .068 .068 .06	-078 -079 -079 -079 -079 -079 -079 -077 -077	.192 .061 .072 .073 .076 .076 .076 .076 .076 .076 .076 .078 .078 .078 .079 .079 .071 .194 .194 .194 .195 .195 .195 .195 .195 .195 .195 .195	- 069 - 100 - 042 - 074 - 100 - 042 - 074 - 100 - 042 - 074 - 100 - 049 - 101 - 102 - 103	1198 1098 1179 1179 1179 1179 1179 1179 1170	-0.001 -0	2.92 1.57 .050 201 1.91 1.92 1.92 1.92 1.93 2.93 2.94 2.94 2.94 2.94 2.94 2.94 2.94 2.95 2.95 2.95 2.95 2.95 2.95 2.95 2.95	-0.094 -0.094 -1.005 -1.005 -1.006 -1	0.79 .001 .017 .019 .019 .019 .019 .019 .019 .019 .019
28.50 31.50 34.50 38.00 41.50 47.50	8.7 12.3 70.7 12.3 70.7 12.7 12.7 12.7 12.3 70.7 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3	-039 -059 -059 -059 -051 -051 -051 -051 -051 -051 -051 -051		- 079 - 079 - 071 - 041 - 041 - 070 - 071 - 072 -	.003 .003 .004 .004 .005 .006 .006 .008 .008 .008 .000 .008 .000 .008 .000 .000 .000 .001 .001	-078 -079 -070 -070 -070 -077 -076 -077 -076 -077 -119 -126 -126 -126 -274 -375 -375 -378 -388 -388 -388 -388 -389 -197 -297 -197 -297 -198	.192 .061 .077 .086 .097 .086 .086 .086 .086 .086 .086 .086 .086		1158 .008 .174 .119 .003 .178 .119 .003 .126 .004 .004 .003 .126 .003 .127 .003 .128 .003 .003 .003 .003 .003 .003 .003 .00	-0.003 -0.01 -0.006 -0.	2.92 1.57 .050 .001 .001 .003 .003 .112 .003 .115 .003 .216 .005 .008 .278 .278 .248 .248 .270 .310 .216 .005 .218 .248 .248 .270 .310 .208 .208 .208 .208 .208 .208 .208 .20	-0.020 -0.030 -0.030 -0.030 -0.030 -0.030 -0.030 -0.026 -0	0.79 (1.10) (1.1

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TABLE III. - CONTINUED

(b) M,0.60.

	Percent		·			,	And	le of attac	t, degrees				
Sta- tion (in.)	fuselage radius	Upper	Lover	Upper	Lover	Upper surface	Lover	Upper	Lover	Upper	Lover	Upper	Lover
ìo	8.7 12.3 70.7	0.083 .083 .067	0.009 .009 .009	0.067 .058 .050	0.017 .017 .017	0.052 .052 .047	0.040 .040 .035	0.035 .035 .035	0.057 .052 .047	0.018 .015 .017	0.0°5 .0°5 .068	0.002 .002 .002	0.110 .102 .065
15	8,7 42.3 70.7	.050 .042 .033	017 017 017	.033 .028	005 005 005	.018 .810.	.013	.002	.027 .019 .016	010 010 010	.052 .036 .030	015 023 023	.077 .057 .035
50	8.7 42.3 70.7	.028 .017	02f. 030 033	.011	025 025 025	.002 003 007	007 010 015	.015 .015	.002	023 027 032	.035 .015 .002	032 040 040	.052 .035 .010
25	P.7 N2.3 70.7	.017	033 033 033	0 005 011	033 033 033	010 015 015	015 015 015	023 027 023	.002 003 015	032 037 037	.01: .013 .002	040 045 045	.035 .027 .002
2 ^p .50	9.7 42.3 70.7	.017 .009	033 038	0 0 005	026 026 033	010 015 015	015 015 015	023 023 023	.002	032 032 032	.027 .01:	040 04° 04°	.043 .035 .002
31.50	A.7 k2.3 70.7	.017 .012	042 042	0 0	033 033 028	015 015 015	015 015 015	03? 028 028	.002 007 .002	043 043	.027 .015	053 057 055	.052 .035 .013
34.50	9.7 \$2.3 70.7	.045 033 .020	050 050 035	.022 .017 .019	033 033 030	.002 .005	013 012 007	020 023 023	.007 .005 .003	045 048 048	.040 .035 .030	0/5 0/3 0 ⁰ 2	.055 .057 .035
3A. DU .	A.7 52.3 70.7	.042 .042	0 ⁸ 3 0'/2 100	017 .009 .017	063 063 058	025 024 .002	024 020 010	043 065 049	.003 .010 .035	0'-0 107 107	.057 .060 .065	132 143 173	.107
41.50	8.7 42.3 70.7	.0% .0% .0%	117 134 167	.003 .003 .003	093 100 117	032 037 044	044 049 057	074 0% 0%	003	120 132 165	.052 .052 .05F	1/5 190 245	.030 .030 .11'
hh.50	9.7 42.3 70.7	.016 .016 .016	134 139 175	017 017 025	100 105 134	054 057 074	057 0% 0°2	035 035 124	020 073 040	035 017 07 0	.035 .035 .02	1'2 1% 232	.0% .0%
47.50	8.7 \$2.3 70.7	.017 .012	017 125 145	017 .012 033	072 103 117	049 007 074	0% 0% 077	0 ⁹ 2 0 ⁴ 0 107	040 045	115 070 14	.01° .01°	14° 0% 190	.052 .052
50.50	9.7 42.3 70.7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	067 100 109	025 02° 033	050 0°3 0°7	049 049 057	024 054 077	0?') 02') 0°2	032 032 040	0% 0% 110	.030 .002	120 127 132	.052 .027 .018
53.50	9.7 42.3 70.7	0	067 067 058	017 017	050 050 050	032	032 032	- Ol-)	01· 01 01··	0%	.010	0°2 070	.027 .017
5/- 50	8.7 42.3 70.7	005 002	040 040 032	025 022 015	049 045 040	032 032 015	027 027 023	040 023	01° 01° 020	04° 04° 035	007 037 012	057 057 053	.015
59.50	9.7 42.3 70.7	003 003 007	028 028 028	020 020 023	037 037 037	018 018 018	020 020 025	023 023 023	015 025 023	037 037 037	007 00 00	032 032 032	.010 .0% 015
au-	Percent fuselage		0		0	13		1			,		
tim (in.)	fuselage rollus	Upper Burfa	Lower surface	Upper surface	Lover aurfice	Upper surface	Lower surface	Upper surface	Lover purface	Upper surface	Lower purface	Upper purface	Lower gurfice
10	8,7 42.3 70.7	-0.012 014 023	0.135 .110 .072	-0.023 028 043	0.168 .127 .068	-0.028 040 055	0.202 .152 .013	-0.03.2	0.215				
15	8.7 42.3 70.7	032 032	.077 R20.	- 017			.011	017	.170	-0.043 9.0 124	0.27 .14 .00	-0.013 10 1*2	0.39° .21° .00°
50	9.7 42.3 70.7	043	.035	037 049 055	.123 .0°5 .035	017 017 092	.152 .105 035	037 077	.170	-0.043 9.0 1.24 049 1.07 1.24	.00	10	3-7
25		040 115 062	.035 .035 .047 .007	055 057 057 092	.123 .0°5 .035 .073 .060	0% 0% 0% 053 090	.152 .105 ÷.035 .122 .0%5 .102	037 077 079 060 090	.170	124 049 107	0.2-2 .1-4 .0-0 .22-2 .14-1 .01-1 .11-6 007	10 14/ 041 127 127	.0
	8.7 42.3 70.7	040 115 062	.035 .068 .047	055 057 057 092	.035	092 092	.152 .105 035 .122	037 077 079 050 090 078 090 090	.170 .0° 3 .145 .035 .160 .102	134 049 107 134 074 107	.0 0 .223 .144 .014 .166 .116	-10 -112 -041 -127 -127 -127 -127 -124	.072
A.50	8.7 42.3 70.7 8.7 42.3 70.7	040	.035 .048 .047 .007	055 057 057 052 048 055 062 048 073 082	.035 .073 .060 .002 .168 .052 .002	018 018 013 090 019	.152 .105 035 .122 .0°5 .102	037 077 079 070 070 070 070 070 070 070 070	.170 .0° 3 .103 .103 .100 .100 .102 .002	134 089 107 124 074 107 124 097 116	.0 0 .222 .144 .014 .116 007	10 1+2 041 127 127 00 127 124	.0:: .2:5 .1:7 .002 .232 .149 00:: .215 .132 017
11.50	8.7 42.3 70.7 8.7 42.3 70.7	040 115 062 043 057 055 055 073 065 073	.035 .047 .047 .007 .057 .035 .002 .068 .040 .002 052 052	055 057 057 052 048 055 062	.035 .073 .070 .002 .169 .052 .002	997 082 048 093 090 009	.152 .105 035 .102 .0°5 .102 .110 .0°6 .002 .118 .077 .002	037 077 079 070 070 070 070 070 070 070 070	.170 .0°3 .163 .165 .035 .160 .102 .002 .152 .000		.0 0 .22 .144 .014 .166 .107 .175 .111023 .166 .111173		.00.1 2: 5 .1.7 .002 .232 .140 -00" .215 .132 -017 .220 .141 005
	8.7 42.3 70.7	040 115 062 043 057 065 065 075	.035 .048 .047 .007 .057 .035 .002 .068 .040 .002	055 057 057 062 065 065 062 082 082	.035 .073 .070 .002 .169 .002 .002 .098 .092 .002	997 092 093 090 097 097 090 04A 092 095	.152 .105 035 .122 .0°5 .102 .110 .0′8	037 077 079 050 090 078 090 090	.170 .0°3 .103 .145 .035 .160 .102 .002 .002 .003 .152 .003 .104 .105 .002	104 049 107 1.4 074 107 116 097 116 097 116 116 116 116 116 116 117 118 118 119 118 119 118 119	.0 0 .223 .134 .014 .116 .116 007 .111 023 .166 .111 173	10 1-2 0-1 127 127 127 124 050 124 116	.0.1 .2.5 .1.7 .002 .232 .149 007 .215 .132 017 .220 .141 006
11.50 14.50 18.00	8.7 \$2.3 70.7 8.7 \$2.3 70.7 \$2.3 70.7 8.7 \$2.3	-040 -115 -052 -043 -057 -055 -048 -055 -073 -055 -073 -065 -073 -082 -072 -112 -176 -196 -248	.035 .048 .047 .007 .057 .035 .002 .068 .040 .002 035 .013	0550570570590550550520820830730731031140215265	.035 .073 .076 .002 .169 .002 .002 .002 .002 .002 .002		.152 .105 .107 .108 .122 .0% .108 .110 .069 .002 .118 .077 .002 .135 .023 .023	037 077 078 060 070	.170 .013 .145 .135 .102 .302 .102 .302 .102 .003 .102 .003 .102 .003 .102 .003	104049017107107107107107107107119	.0 0 .22 .145 .014 .116 007 .175 .111 023 .116 .111 173 .144 .153		.0.1 .2.7 .0.2 .232 .110 .0.0 .112 .0.0 .113 .0.0 .114 .0.0 .210 .115 .200 .115 .200 .115 .200 .116 .200 .117 .200 .119 .200 .119 .200 .119 .200 .210
1.50	8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 42.3 70.7 8.7 42.3 70.7		.035 .048 .047 .007 .007 .002 .068 .040 .002 .002 .002 .013 .002	0550570570590550550520820830730731031140215265	.035 .073 .076 .002 .164 .002 .002 .098 .007 .007 .007 .007		.152 .103 .103 .103 .102 .075 .102 .110 .076 .002 .118 .077 .002 .135 .073 .073 .073 .073 .073 .073 .073 .073	037 077 078 060 070	1.70 .0°2 .1°3 .1°4 .1°5 .032 .160 .002 .172 .002 .172 .002 .103 .003 .104 .002 .003	104049017107107107107107107107119	.0 0 0	10 10 127 127 127 127 128 124 124 116 132 116 132 116 124 116 124 116 124 116	.00° 2.19 2.19 2.29 2.23 2.14 2.23 2.14 2.20° 2.21 2.20° 2.21 2.20° 2.20° 2.21 2.20° 2.20° 2.20° 2.30°
11.50 14.50 18.00	8.7 42.3 70.7 8.7 42.3 70.7 9.7 42.3 70.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	-040 -115 -052 -043 -077 -075 -075 -075 -075 -075 -070 -070	.035 .047 .047 .007 .035 .002 .003 .002 .003 .003 .003 .003 .003	095047047047048055048073048073049073049073049073049073049073049073049073049073049073049073073049073049073049073049073049073049073049073049073049073049073049073049073049049073049073049073049073049073049073049073049073	.035 .073 .076 .006 .007 .007 .007 .007 .007 .010 .010 .021 .021 .021 .031 .031 .031 .031 .031 .031 .031 .03	-297 -097 -093 -093 -090 -047 -077 -077 -079 -042 -075 -075 -107 -115 -148 -148 -148 -130 -320 -320 -320 -320 -320 -320 -320 -3	.11-2 .107 .107 .107 .107 .107 .100 .107 .100 .116 .007 .002 .116 .003 .116 .003 .116 .003 .116 .003 .116 .003 .116 .003 .003 .003 .003 .003 .003 .003 .00	037 077 078 090 090 090 090 090 099 099 099 099 099 099 115 116 123 165 273 357 357 359	.170 .0°3 .114 .114 .135 .035 .160 .102 .002 .172 .003 .103 .000 .001 .103 .002 .104 .000 .000 .000 .000 .000 .000 .000	-1.194 -0.049 -0.07 -1.194 -0.07 -1.194 -0.07 -1.194 -1.116 -0.07 -1.116 -0.07 -1.116 -0.07 -1.118 -1.124 -1.124 -1.124 -1.124 -1.124 -1.124 -1.124 -1.124 -1.124 -1.124 -1.124 -1.124 -1.124 -1.124 -1.124 -1.124 -1.125 -1.126 -	.0 0 0 122 124 124 125 125 125 125 125 125 125 125 125 125	-10 -11 -11 -11 -11 -11 -11 -11 -11 -11	.001 293 293 293 293 293 293 293 293 293 293
11.50 14.50 19.00	8.7 8.7 70.7 8.7 10.	-040 -110 -110 -110 -110 -110 -100 -100	.015 .047 .047 .007 .007 .015 .002 .060 .040 .040 .040 .072 .013 .020 .072 .041 .122 .135 .135 .135 .135 .135 .135 .135 .135	-095 -095 -097 -097 -098 -088 -082 -098 -093 -093 -093 -193 -193 -193 -193 -215 -232 -277 -265 -332 -377 -215 -125 -1298	.015 .075 .076 .076 .076 .076 .078 .078 .077 .076 .076 .077 .071 .071 .072 .072 .073 .074 .074 .075 .076 .076 .076 .076 .077 .076 .076 .076	-097 -097 -018 -019 -090 -007 -007 -007 -007 -007 -007 -00	.152 .103 .103 .103 .102 .102 .103 .104 .105 .002 .115 .002 .003 .003 .164 .116 .002 .125 .003 .116 .003	-017 -017 -078 -009 -009 -009 -009 -009 -009 -009 -00	1.70 .0°2 .1°3 .1°4 .1°5 .032 .160 .002 .172 .002 .172 .002 .103 .003 .104 .002 .003	-11/2 - 0.049 - 1.07 - 1.14 - 0.074 - 1.107 - 1.124 - 0.074 - 1.107 - 1.124 - 0.019 - 1.116 - 0.019 - 1.116 - 0.019 - 1.116 - 0.019 - 1.126 - 1.127 -	.0 0 0	-10 -110 -110 -110 -110 -110 -110 -110	.001 293 293 293 293 293 293 293 293 293 293
91.50 14.50 19.00		-0.00 -100 -100 -100 -100 -0.0	.015 .058 .058 .057 .007 .057 .035 .040 .040 .040 .040 .040 .072 .073 .073 .073 .073 .073 .074 .075 .075 .075 .075 .075 .075 .075 .075	095097048048049049048048048048048048049073072073072073	.035 .073 .073 .076 .002 .002 .002 .002 .007 .007 .007 .007		.159 .109 .109 .109 .109 .109 .109 .109 .10	-017 -017 -017 -019 -010 -010 -010 -010 -010 -010 -010	1.70 0.10 1.11 1.11 1.15 1.15 1.160 1.102 0.003 1.102 0.003 1.102 1.002 1.102 1	-11/2 - 0.049 - 1.07 - 1.14 - 0.074 - 1.107 - 1.124 - 0.074 - 1.107 - 1.124 - 0.019 - 1.116 - 0.019 - 1.116 - 0.019 - 1.116 - 0.019 - 1.126 - 1.127 -	.0 0 20 114 114 114 114 114 114 114 114 114 11	-10 -10 -10 -10 -10 -10 -10 -10 -10 -10	.00°. 2°.9 .00°
(1.50 (4.50 (1.50 (4.50	8.7 10.7 1	-040 -110 -110 -110 -110 -110 -100 -100	.015 .047 .047 .007 .007 .015 .002 .060 .040 .040 .040 .072 .013 .020 .072 .041 .122 .135 .135 .135 .135 .135 .135 .135 .135	075075077077076085085085078073	.015 .075 .076 .076 .076 .076 .078 .078 .077 .076 .077 .071 .071 .072 .072 .072 .073 .074 .074 .074 .074 .075 .076 .076 .076 .076 .076 .076 .076 .076	-097 -097 -098 -098 -091 -090 -096 -097 -097 -097 -097 -097 -097 -107 -119 -119 -149 -149 -149 -149 -149 -149	.159 .109 .109 .109 .109 .109 .109 .109 .10	-017 -017 -078 -009 -009 -009 -009 -009 -009 -009 -00	1.70 .013 .1-10 .013 .1-10 .033 .1-10 .1-1	-11/24 -0.049 -1.07 -1.14 -0.07 -1.19 -0.07 -1.19 -0.07 -1.19 -1.10 -0.07 -1.19 -1.19 -1.17 -1.19 -1.1	.0 0 22 1 115 1	-10 -10 -10 -10 -10 -10 -10 -10 -10 -10	.001 .012 .013 .014 .017 .017 .017 .017 .017 .017 .017 .017
9.00 9.00 11.50 4.50 7.50		-010 -010 -010 -010 -010 -010 -010 -010	.015 .047 .047 .077 .077 .075 .066 .040 .066 .040 .002 .072 .013 .012 .012 .013 .013 .014 .014 .014 .014 .014 .014 .014 .014	055057057057057057058058078073059073059132132132215265332217265332217215126132217215218217215218217215218217218	.013 .073 .074 .076 .002 .002 .002 .002 .002 .002 .002 .00	-072 -073 -074 -073 -073 -073 -074 -077 -077 -077 -077 -077 -077 -072 -072	.159 .109 .109 .109 .109 .109 .109 .109 .10	-017 -017 -017 -017 -018 -019 -019 -019 -019 -019 -019 -019 -019	1.70 1.70 1.170 1.171 1.171 1.171 1.171 1.172 1.173 1.	-110	.0 0 .0	-10 -110 -110 -110 -110 -110 -110 -110	.00°. 2°.9 10°. 2°.9 10°. 2°.9 2°.9 2°. 2°. 2°. 2°. 2°. 2°. 2°. 2°. 2°. 2°.

TABLE III. - CONTINUED

(c) M,0.70.

Stan	Percent					gle of attack,		- 2			
tion (in')	fuselage radius	Upper surface	Lover	Upper	Lower surface	Upper surface	Lover	Upper surface	Lower surface	Upper surface	Lover surface
10	8.7 12.3 70.7	0.088 .079	0.012 .012 .012	0.066 .063 .072	0.019 .019 .019	0.048 .048 .048	0.035 .035 .035	0.026 .028 .028	0.055 ,048 ,041	0.011 .011 .011	0.068 .064 .048
15	8.7 42.3 70.7	.0%2 .0Å1 .031	012 019 019	.032 .026 .021	008 012 008	.017 .015 .015	.008 .001 .001	003 005 005	.019 .011 008	019 019 019	.035 .024 .015
20	8.7 42.3 70.7	.02% .015 .001	032 032 032	.008 .005 008	031 031 035	005 005 012	012 019 019	025 025	005 012 019	039 039 039	.015 .001 .012
27	8.7 42.3 70.7	.015 .001 009	032 032 036	001 015 015	035 035 035	-,012 -,019 -,019	023 023 025	-,037 -,039 -,039	012 019 025	039 045 045	.001 008 019
28.50	8.7 k2.3 70.7	.015 .008 005	~.032 ~.032 ~.031	001 008 015	035 035 035	-,005 -,019 -,019	-,019 -,019 -,019	~.039 ~.039 ~.039	012 012 025	-,043 -,043 -,043	,001 006 019
31.50	8.7 42.3 70.7	.015 .008 005	041 041 041	001 008 015	035 035 035	012 015 019	023 025 019	039 039 039	012 012	- 058 - 058	001 006 012
34.50	8.7 - 42.3 70.7	.041 .035 .021	036 045 045	.023 .015 .009	035 035 035	001 005 001	019 012 012	025 025 025	.001 .001 .001	55 1 05 1 1	.024 .015 .008
38.00	8.7 42.3 70.7	.048 .041 .082	-,092 -,096 -,103	.019 .012 .045	068 065 061	- 015 - 023 - 008	032 031 012	061 066 072	.001 .008 .028	-,092 -,110 -,106	.035 .041 .068
11.50	8.7 12.3 70.7	.048 .048 .061	139 152 179	.009 .009 .009	-,102 -,115 -,139	032 039 045	059 066 072	088 099 115	012 016 016	- 132 - 146 - 179	.028 .028 .041
44.50	8.7 12.3 70.7	.017 .017 .012	-,152 -,166 -,199	021 021 035	-, 122 -, 128 -, 168	- 063 - 072 - 082	079 082 106	- 112 - 119 - 113	039 039 056	159 172 199	.001 .003 ~012
¥7.50	8.7 \$2.3 70.7	.008 .035 005	139 146 166	-,021 .005 -,084	- 115 - 122 - 142	059 019 086	072 086 099	106 052 132	039 052 066	-,003 -,072 -,172	008 012 025
50.50	8.7 42.3 70.7	005 005 019	,063 ,116 ,126	035 035 041	068 107 108	079 079 072	045 072 082	092 092 106	021 052 059	119 119 132	00; 025 039
53.50	8.7 42.3 70.7	-005	072 072 126	021 019	061 061 055	-052 -032	045 045 036	066 052	036 036 029	 079 066	.012 .012 .012
56.50	8.7 42.3 70.7	015 012 007	051 048 046	028 021	===	032 032 024	040 036 035	052 052 034	-,030 -,031 -,024	066 066 039	-,022 -,022 -,022
59.50	8.7	012 017	035		===		034	03B 036	064 026	-,044 -,042	017 022 035
	N2.3 70.7	017 018	035 035 036	===		-,032 -,032 -,032	032 039	036	036	039	
Sta- tion (in.)	12.3	018	6 Lover		A &	ngle of attach	, degrees	036	036	039	Lover
Station (in.)	Percent fuselage radius	Upper surface	lower surface	Upper surface	8 Lower surface 0.135	Upper surface	Lower surface	036	Lover surface	Upper surface	Lover surface
tion (in.)	Percent fuselage radius	Upper surface -0.00A00A008008	6 Lover surface 0.100 .095 .099 .072 .072	Upper eurface -0.008 025 025	Lower surface 0.135 .108 .058	Upper surface -0.032 039 052	Lower surface 0.158 .122 .061	036 Upper eurface -0.052079088	2 Lover surface 0.202 .146 .068	Upper eurface -0.0k3 066 106 089 086	Lover surface 0.229 .175 .068
tion (in.)	82.3 70.7 Percent fuselage radius 6.7 82.3 70.7 8.7 82.3 70.7	Upper surface -0.00A00A008003003003003	6 Lover eurface 0.100 0.95 0.99 0.92 0.	Upper eurface -0.008 025 025 039 039 052	8 Lover surface 0.135 1.08 .095 .095 .028 .028 .041	Upper surface -0.032039052045059	, degrees Lover surface 0.158 .122 .061 .115 .082	036 Upper surface -0.039052079	036 Lower surface 0.202 148 .068 .129 .102 .028	Uyper surface -0.0k3 066 106 089 086 112	Lower surface 0.229 .175 .068
10 15	8.7 Percent fuselage radius 8.7 8.2 70.7 8.3 70.7 8.7 8.7 8.7 8.7 8.7 70.7	018 Upper eurface 0.00 0.00 0.00 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01	6 Lower eurface 0.100 .095 .079 .072 .099 .092 .091	Upper eurface -0.008 -0.005 -0.005 -0.005 -0.005 -0.005 -0.002 -0.002 -0.002 -0.005 -0.006	8 Lower surface 0.135 .058 .058 .068 .068	Upper surface -0.032 -0.039 -0.052 -0.045 -0.052 -0.050 -0.050 -0.050 -0.050 -0.050 -0.050 -0.050	, degrees Lover surface 0.158 .122 .061 .115 .082 .029 .062 .055	036 1	2 Lover surface 0.202 .146 .068 .155 .102 .028	Upper eurface -0.0k3 066 106 089 086	Lover surface 0.229 0.229 0.000 0.189 0.122 0.000 0.189
10 15 20	8.7 10.7 Percent russings radius 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	-,018 Upper surface -0,004 -,008 -,001 -,011 -,013 -,013 -,012 -,013 -,012 -,013 -,013 -,012 -,014 -,017 -,018 -,017 -,018 -,017 -,018 -,018 -,019 -,018 -,	6 Lover eurface 0.100 .095 .099 .072 .099 .092 .001 .022 .001 .032 .001 .032 .005	Upper eurface -0.008 -009 -009 -009 -009 -009 -009 -009 -	8 Lower surface 0.135 .105 .059 .028 .028 .028 .026 .025 .005 .005 .005 .005 .005 .005 .005	Upper surface -0.032 -0.032 -0.052 -0.045 -0.056 -0.066	Lower surface 0.158 0.158 0.159 0.151 0.161 0.152 0.062 0.029 0.062 0.055 0.005	036 Upper eurface -0.039092079084066092079	036 Lover surface 0.202 1349068179003003	Upper curface -0.043 -0.066 -112 -0.09 -0.06 -112 -0.09 -0.09 -0.06 -112 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09	Lover surface 0.229 .175 .088 .189 .955 .995 .995 .995 .995 .995 .995 .9
tion (in.) 10 15 20	\$2.3 70.7 Percent Fuelage radius 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7 8.7 \$2.3 70.7	-,018 Upper eurace -0,004 -001 -011 -011 -015 -092 -048 -092 -048 -095	6 Lower surface 0.100 .095 .095 .072 .092 .081 .081 .093	Upper eurface -0.005025025033052072072075066077	8 Lower surfaces 0.135 0.056 0.075 0.088 0.041 0.001 0.051 0.051	Upper surface -0.032 -0.052 -0.052 -0.052 -0.055 -0.056 -0.056 -0.056 -0.056 -0.056	, degrees Lower surface 0.198 .122 .061 .115 .062 .055 .062 .055 .063 .041 .062	036 Upper eurface -0.039059066066059079045079045096	2 Lower surface 0.202	-039 Upper eurface -0.0k3 -066 -106 -0.069 -106 -112 -0.05 -0.05 -0.05 -0.05 -0.05 -0.05 -0.05 -0.05	Lover surface 0.229 .175 .088 .189 .955 .995 .995 .995 .995 .995 .995 .9
tion (in.) 10 15 20 25	\$2.3 70.7 Ferrent Fue-stage realises 6.7 \$2.3 70.7 \$2.3 70.7 \$2.3 70.7 \$2.3 70.7 \$2.3 70.7 \$2.3 70.7 \$2.3 70.7	-,018 Upper eurrace eurrace -,004 -,008 -,008 -,011 -,011 -,013 -,013 -,013 -,014 -,016 -,061 -,061	6 Lover eurrage 0,100 - 0,55 -	Upper eurface -0.008 -027 -019 -019 -02 -02 -079 -079 -079	8 Lower currace 0.135 .106 .098 .098 .008 .009 .001 .001 .001 .002 .008 .008 .009 .009 .009 .009 .009	Depte of attach Upper surface -0.039 -0.09	, degree Lower eurface 0.195 -025 -025 -035 -035 -035 -035 -035 -035 -035 -03	036 Typer euritee -0.139 -0.02 -0.03 -0.04 -0.05 -0.05 -0.07 -0.04 -0.05 -0.07 -0.07 -0.05 -0.07 -0.05 -0.09 -0	2 Lower surface 0.202 .1122 .063 .003 .003 .003 .003 .003 .003 .003	-039 Upper eurface -0.043 -0.066 -112 -0.05 -0.09 -106 -112 -0.05 -0.09 -106 -112 -0.09 -106 -112 -0.09 -106 -1.136 -1.1	Lover surface 0.229 177 .088 1189 .122 .028 .188 .050 .050 .050 .050 .050 .050 .050 .0
tion (in.) 10 15 20 25 28.50	\$2.3 70.7 Porcent fuelage reduce 8.7 70.7 8.7 \$2.3 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70	-,018 Upper surface -0.00A -0.00A -0.01 -0.01 -0.01 -0.03 -0.03 -0.03 -0.05 -0.05 -0.05 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06	6 Lover europe 1,000 (100 (100 (100 (100 (100 (100 (10	Upper eurines -0.002 -0.03	Lower Suffice Color Co	ngle of attach Upper surface -0.032 -0.05 -0.05 -0.05 -0.06 -0.06 -0.06 -0.06 -0.06 -0.07 -0.06 -0.07 -0.06 -0.07 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06	, degrees Lower eurface 0.196 .122 .061 .115 .082 .095 .003 .041 .015 .082 .051 .095 .003 .041 .012 .052 .055 .055 .055 .055 .055 .055 .05	036 Dyper eurosy05205205205505905605	2 Lover eurran 2 1 1 1 2 2 1 1 2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	-039 Gyper Gyper eurfices -0.04; -0.05 -0.06 -0.06 -112 -0.09 -106 -112 -0.09 -106 -112 -0.09 -106 -113 -0.09 -106 -113 -0.09 -106 -139 -0.09 -106 -139 -0.09	Lover surface of the control of the
tion (in.) 10 15 20 25 28.50 31.50	\$2.3 70.7 Portect fuelage reditive 8.7 8.7 8.7 70.7 8.7 70.7 8.7 70.7 8.7 70.7 8.7 70.7 8.7 70.7 8.7 70.7 8.7 70.7 8.7 8.7 70.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8	-,018 Typer surface -,004 -,008 -,009 -,019	6 Lover eurrase 0,100 ,007 ,009 ,009 ,009 ,009 ,009 ,009 ,0	Upper europe of control of contro	6 Lever Le	Upper surrace -0.099 -0.009 -0	, degrees 10 1.cer 0.198 2.22 0.01 1.02 1.02 1.02 1.02 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03	036 039040040059040059040059059059079059079059079059079059079059079059	2 Lower surface 0.262	-039 Opper Currice -0.61 -0.66 -0.69 -0.66 -112 -0.92 -0.90	Lover surface 0.229 1.177 0.620 1.18
tion (in.) 10 15 20 25 28.50 31.50 38.60	\$2.3 70.7 Portect fuelage reduce \$2.7 \$2.3 70.7 \$5.7 \$2.3 70.7 \$2.3 70.7	-,018 -,018 -,000 -,000 -,008 -,019 -,01	6 Lower surface 0.100 / 0.000	0799 - 0.006 - 0.007 - 0.006 - 0.006 - 0.006 - 0.007 - 0.006 - 0.007 - 0.006 -	6 6 Lower surfaces 0.135 co. 0.135 c	ngie of attack	, degrees 10 Levat eurisse 0.192 .063 .069 .075 .068 .075 .060 .061 .011 .082 .062 .062 .063 .011 .012 .062 .063 .011 .012 .062 .063 .011 .012 .062 .063 .011 .012 .062 .063 .011 .012 .062 .063 .063 .061 .062 .062 .062 .063 .063 .063 .063 .063 .063 .063 .064 .062 .062 .062 .062 .062 .062 .062 .062	036 039046059066059079046099	2 Lower europe 2 1 Lowe	-039 Upper eurice -0. ck1 -0. ck2 -0.	Lover Lover 1
tion (in.) 10 15 20 25 28.50 31.50 38.00	\$2.3 70.7 Percent fuelage reduces \$8.7 10.3 70.7 \$2.3 70	-0.08 -0.00	6 Lover eurrase 6 . 100 . 000		6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	### OF A CONTROL OF THE PROPERTY OF THE PROPER	, degrees 10 1.cer 10	036 Dyper europe00900	036 2 Cover currisco 0.202 0.203 1.02 0.033 1.19 0.07 1.003 1.004 0.003 1.004 0.005 1.	-039 Orper Grant Orper Grant Orper Grant Orper Grant Orper Orp	Loser of the control
tion (in.) 10 15 20 25 28.50 31.50 34.50 41.50	\$2.3 70.7 Portect fuelage reduce \$2.7 \$2.3 70.7 \$5.7 \$2.3 70.7 \$2.3 70.7	-018 -079 -070 -070 -070 -070 -070 -070 -07	6 Lover eurase 0.100 / 0.000 /		Lower Section Lower Lower Section Lower Section Lower Section Lower Section Lower Section Lower	ngie of attack	, degrees 10 Levet eurface 0.132 .062 .063 .015 .069 .069 .061 .015 .062 .061 .011 .082 .081 .091 .091 .091 .091 .091 .091 .091 .09	036 039046059066059079046099	036 Lower surface 0.202 0.202 0.102 0.003 0.102 0.003 0.103 0.0	-039 Upper eurland -0.043 -0.065 -0.066 -0.	Liver surface
tton (in.) 10 20 28:50 31:50 31:50 47:50	\$2.3 70.7 Forcent fus-lags reduce 8.7 82.3 70.7 8.7 82.3 70.7	-018 -018 -019 -020 -030 -030 -030 -031 -031 -031 -031 -03	6 Lower surface 0.100		6 6 Lower eurification (1998) 1998 1998 1998 1998 1998 1998 1998	ngie of stiack	, degree 10 10 10 10 10 11 10 11 10	036 Dyper eurrece e	036 Lower furface 0.202 1.025 1.026 1.027 1.027 1.031 1.041 1.0	-039 Green Green -0.041 -0.061 -0.06 -0.06 -0.06 -0.09 -0.0	Lover of the control
tion (in.) 10 20 25 28.50 31.50 34.50 47.50 20.50	\$2.3 70.7 Percent fursings reduce \$6.7 \$2.3 70.7 \$6.7 \$6.7 \$2.3 70.7 \$6.7 \$2.3 \$2.3 \$2.3 \$2.3 \$2.3 \$2.3 \$2.3 \$2.3	-018 -018 -019 -019 -019 -019 -019 -019 -019 -019	6 Lover eurases of the control of th		6 Level 150 A A A A A A A A A A A A A A A A A A A	ngle of attack Upper eurises -0.99	, degrees 10 10 10 10 10 10 10 10 10 10 10 10 10	036039040040059040059040059	-036 Lower surface 0.28 0.28 0.28 1.19 1.02 0.03 1.03 0.03 1.04 0.02 0.05 0.05 0.05 0.05 0.05 0.05 0.05	-039 Green Green -0.04) -0.05 -0.06 -0.06 -0.06 -0.112 -0.09 -0.0	Lever surface

TABLE III. - CONTINUED

(d) M,0.75.

						Angle of et	tack, degrees				
Sta- tion (in.)	Percent funciage radius	Upper surface	Lover	Opper	Lower surface	Upper surface	Lower surface	Opper surface	Lower surface	Upper surface	Lower surface
10	8.7	0.070 .064 .052	0.006 .006 .002	0.067 .064 .057	0.027 .027 .027	0.045 .045 .045	0.045 .039 .033	0.024 .024 .031	0.055 .049 .043	0.009 .009 .015	0.092 .070 .058
15	8.7 \$2.3 70.7	.039 .027 .025	018 022 022	.045 .027	00A 010 004	.009 .009 .009	.002 .002	006 006 006	.018 .006 .006	016 016 013	.045 .033 .021
20	8.7 \$2.3 70.7	.009 .002 018	022 034 034 040	.021 009 .002 010	022 022 022	016 016 016	016 016 022	024 027 031	006 012 018	032 032 034	.015 .009 004
25	8.7 \$2.3 70.7	001 016	043 043 047	004 010 013	028 028 028	022 028 028	025 025 026	031 037 037	018 018 024	037 044 044	.005
28.50	B.7 12.3	-,022 -,002 -,010	040 040 048	.015 010 010	022 022 031	022 022	016 016	034 034 034	015 016 027	040 040 040	.009 .009 013
31.50	70.7 8.7 \$2.3 70.7	022 001 006 022	047 047 047	004 004 010	031 031 029	016 016 028	022 022 022	037 037 037	-,016 -,018 -,018	047 047 047	.009 .005
34.50	8.7 42.3	.017 .017 .002	053 047 043	.021 .015 .015	028 028	010 010 010	010 010 004	031 031 028	.002	-,040 -,040	.033 .027 .021
38.00	8.7 42.3 70.7	.033 .027 .064	093 096 102	.015 .015 .051	077 073 046	-,028 -,028 -,00h	025 016	-,055 -,067 -,049	.006 .006 .031	096 110 107	.045 .054 .082
1.50	8.7 k2.3 70.7	.027 .027 .031	151 157 182	.005	095 108 126	053 0 065	053 053 065	092 104 120	018 018	142 157 194	.039 .039 .053
¥4.50	9.7 k2.3 70.7	004 010 013	166 179 21	028 031 040	120 126' 156	,0%1 ,0%0 ,102	075 077 10:	126 132 3	0k3 0k3 06;	17; 1 ^{£f} 212	.012 .012
¥7.50	/1.7 \$2.3 70.7	013 015 034	157 157 194	02f .006 053	124 120 144	-,077 -,032 -,102	077 0°3 102	116 057 144	049 055 067	151 09/. 1 ^{pr}	00A 00A 01/:
50.50	8.7 42.3 70.7	-,032 -,028 -,040	096 133 139	cho oho oh6	065 095 108	077 077 086	040 077 083	104 104 116	028 055 .067	126 126 139	.009 .020 .028
53.50	8.7 42.3 70.7	022	083 083 071	022	059 059 046	047 ,040	047 049 040	067 055	034 034 031	017 015	00: 013 012
56.50	8.7 42.3 70.7	034 031 011	052 048 048	028 022 016	042 038	040 040 079	090 088 088	055 055 036	033 032 027	059 053 038	011 013 015
59.50	8.7 k2.3 70.7	-,023 -,023 -,023	039 038 042	018 017 020	029 025 035	068 089 087	086 087 093	037 034 034	023 026 040	033 035 035	011 015 037
Sta-	Percent			<u> </u>		Angle of	attack, 1egress				
tion (in.)	Percent Fuselage railus	Upper surface	6 Lower surface	Upp	8 er ace	Lever	Upper surface	O Lower surface	Upper	• •	OMET IT FACE
tion (in.)	fuseinge ratius	Upper eurface -0.00k 00k 00k	6 Lower surface 0.107 .094 .070	Upp- sur n -0.0 0	8 er ace 18 18		1 typer eurface -0.034040059	0 Lower surface 0.167 .131 .064	-0.034 053 075		arface 0.195 .150 .014
	8.7 42.3 70.7	Upper surface -0.00k 00k 00k 008 028	surface	•wrf1	18 18 31	Lever	Upper eurface -0.03Å 040 059 053 061 077	0.167 .131 .06L .122 .082 .024	-0.03k 053 075 076 070 070	• •	.150 .150 .0;4 .150 .0;4 .150 .101
10	fuseinge ratius	-0.00k 00k 00k 028 028 028	0,107 .09A .070 .070 .049 .027	-0.0 0 0 0 0 0	18 18 33 39 44 43 99 49 99 67	0.135 .110 .0'7	Upper eurface -0.03å 040 059 061 077 073 071 089	0.167 .131 .06L .122 .082 .024 .098 .074 009	-0.03% 053 075 075 076 077 076 077 077		arface 0.199 .150 .150 .101 .007 .117 .072 .002
10	fuselnge ratius 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	-0.004 004 004 028	0.107 .054 .070	-0.0 0 0 0 0	18 18 33 33 43 999 49 999 67 67	0.135 .110 .047 .094 .067 .027	Upper surface -0.03\(-0.05\)040059061073061073071073071089074077089	0.167 131 .061 122 .062 .024 .093 .093 .094 .099	-0.034 -0.035 -0.075 -0.075 -0.071 -0.075 -0.071 -0.075 -0.071 -0.075		arface 0.195 1.150 0.014 1.150 1.011 1.027 1.117 0.027 1.117 0.020 1.010 1.064 1.016
15	8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	-0.004 -,004 -,008 -,028 -,028 -,028 -,040 -,040 -,051	0.107 .094 .070 .070 .070 .040 .027 .039 .027 .005 .027 .015 .007	-0.0 0 0 0 0 0 0 0	18 18 18 33 33 33 39 43 50 50 67 67 67	Contract	Upper surface -0.03050051057051057057057057057057057057057057057057057057057057057057	ewrites 0.167 131 .061 .122 .062 .024 .008 .074 .009 .070 .047 .009 .070 .049 .062 .049 .062			######################################
10	Puse lago realisms 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 9.7 42.3 70.7	-0.00A 00A 00A 00B -		-0.0	18 33 39 49 49 49 49 60 60 60 60 60 60 60 60 60 60 60 60 60	Lower surface 0.135 110 0.135 110 0.67 0.67 0.69 0.67 0.09 0 0.09 0 0.09 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 .	Upper surface -0.03k -0.059 -0.071 -0	0.167 1.131 1.061 1.122 0.062 0.063 0.070	-0.01% -0.07% -0.077 -0		### (### (### (### (### (### (### (###
10 15 20 25 28.50	B.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	-0.004004008008008008008008009009009009009009009009009009009009009009009009		-0.0	18 18 18 18 19 18 19 19 19 19 19 19 19 19 19 19 19 19 19	Lower nur face 0	Upper surface	ewrites 0.16-0 1.131 .062 .062 .063 .074 .070 .040 .070 .040 .061 .062 .070 .040 .070 .040 .050 .051 .051 .052 .053 .053 .053 .054 .053 .054 .053 .054 .053 .054 .055 .057 .057 .057 .057 .057 .058	eurfac -0.010 -0.050 -0		### ### ### ### ### ### ### ### ### ##
10 15 20 25 28.50 31.50	Cusclage resilues 6.7 42.3 70.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6	-0.00A00A00A00A00A00B	0.107 0.107 0.107 0.107 0.09A 0.007 0.007 0.007 0.007 0.007 0.007 0.001 0.001 0.001 0.001 0.004 0.004 0.009 0.008 0.009 0.008 0.009 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008		18 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	Lower nur face 0.135 1.110 1.100 1.1	Upper surface	### The author	eurhe		arthes 1.19 1.19 1.10 1.10 1.10 1.10 1.10 1.10
10 15 20 25 28.50 31.50	Cuselage realize reali	-0.00A -0.00A -0.00A -0.00A -0.00C -0	0.0107 0.027 0.027 0.027 0.027 0.027 0.027 0.027 0.027 0.027 0.027 0.021		18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	Lever nur race 0.135	Upper surface	surface 0.107 1.007 1.	eurine		#free 1.150
10 15 20 25 28.50 31.50 34.50	Cus-laige resistance of the control	-0.00A -0.00A -0.00A -0.00A -0.00B -0	0.107 0.107 0.107 0.107 0.09A 0.007 0.007 0.007 0.007 0.007 0.007 0.001 0.001 0.001 0.001 0.004 0.004 0.009 0.008 0.009 0.008 0.009 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008 0.008		18 18 18 18 18 18 18 18 18 18 18 18 18 1	Lever surface 0.135	Upper surface	September Sept	eurhe		#free 1.150 1.150 1.150 1.150 1.150 1.150 0.072 0.072 0.072 0.073 1.101 0.066 0.066 0.066 0.060 0.072 0.073 0.073 0.073 0.074 0.075
10 15 20 28.50 31.50 38.00 41.50	Cus-laige resistance of the control	-0.00A -0.00A -0.00A -0.00A -0.00C -0	## Theo ## On 107 - 070 - 07		18 18 18 18 18 18 18 18 18 18 18 18 18 1	Lever surface 0.135	Upper surface	September Sept	eurhe		#free 1.19 1.19 1.10 1.10 1.10 1.10 1.10 1.10
20 25 28.50 31.50 34.50 34.50	Cusclage resistance of the control o	-0.00A -0.00A -0.00A -0.00A -0.00B -0	## Theo ## Control ##		18 18 18 18 18 18 18 18 18 18 18 18 18 1	Lever surface 0.137 1.00 1.137 1.100 1.137 1.100 1.137	Upper surface	wurface wurf	eurhe	7 7 7 8 8 6 6 6 6 6 6	######################################
10 15 20 28.50 31.50 38.00 41.50 47.50	Cuse large restaurance for the first state of the f	-0.00A -0.00A -0.00A -0.00A -0.00B -0	wurkes w		18 18 18 18 18 18 18 18 18 18 18 18 18 1	Lever surface 0.135	Upper surface	Section Sect	eurhe	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	#### #################################
10 15 20 25,50 31,50 34,50 41,50 47,50	Cusclage resistance of the control o	-0.00A -0.00A -0.00A -0.00A -0.00B -0	## These		18 18 18 18 18 18 18 18 18 18 18 18 18 1	Lever surface 0.137 0.13	Upper surface	Section Sect	eurhe0-0191 -0-0791 -0792 -	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	#free 1.19 1.19 1.10 1

TABLE III. - CONTINUED

(e) M,0.80.

							l= ^* a++a/								
Sta-	Percent	· · · · ·	4		2	0			2				5		8
tion (in.)	fuselage radius	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover aurface	Upper surface	Lover surface	Upper aurface	Lower surface	Upper surface	Lower surface
10	8-7 42-3 70-7	0.071 .065 .054	0.006 .006 .002	0.051 .048 042	0.006 .003 .008	040.0 040.	.031 .039 .088	0.025 .025 .031	0.053 .050 .042	0.010 .010 .010	0.078 .072 .055	-0.017 .017 .017	0.093 .082 .053	-0.020 023 029	0.127 .104 .054
15	8.7 \$2.3 70.7	.036 .025 .014	021 026 024	.014 .014 .005	021 026 026	.006 0	006 006	009 009 003	.019 .008 .008	020 020 018	.044 .027 .015	043 043 043	. 059 .036 .014	043 049 054	.087 .059 .023
20	8.7 12.3 70.7	.002	041 041 043	009 017 026	043 043 043	017 023 028	025 028 028	026 029 032	007 015 018	038 038 038	.014 .005 012	054 054 066	.025 .014 ~.015	052 050 071	.053 .031 007
25	8.7 42.3 70.7	003 018 026	047 047 049	021 032 047	052 052 052	028 036 036	036 036 037	035 037 037	018 020 026	044 046 050	001 007 020	058 056 059	.014 .002 020	052 045 071	.042 .019 015
28.50	8.7 42.3 70.7	003 015 021	043 043 049	021 026 032	043 047 055	032 032	028 028 037	037 037 037	015 015 026	044 046 046	.007 001 018	058 060 066	.019 .014 020	052 060 071	.045 .031 015
31.50	9.7 42.3 70.7	003 009 021	043 043 043	021 024 032	052 052 049	028 028 03h	034 034 028	037 037 037	015 018 018	046 046 046	.007 006 012	0% 0% 072	.025 .009 009	0%0 0% 071	.053 .031 0
34,50	8.7 42.3 70.7	.022 .019 .006	049 032 032	.002 .002 007	043 043 039	011 017 017	017 017 017	026 026 026	.002 .002 003	044 044 044	.033 .027 .016	069 072 072	.051 .036 .019	071 077 082	.087 .068 .036
38.00	8.7 42.3 70.7	.036 .031 .065	095 100 100	.002 001 .036	073 065	023 034 0	034 028 005	058 066 043	.002 .010 .036	.014 001 106	.044 .055 .034	1% 179 196	.0% .087 .114	088 229 263	.014 .014 .155
£1.50	8.7 42.3 70.7	.027 .036 .036	166 174 203	009 009 009	129 146 163	051 057 052	062 074 033	099 105 128	015 018 015	165 182 213	.044 .044 .055	253 281 333	.082 .092 .104	337 375 444	.132 .132 .160
44.50	8.7 42.3 70.7	.105 .105 .037	192 203 245	049 049 060	163 169 203	094 096 116	096 10? 127	139 150 167	045 049 071	205 216 247	.010 .010 001	293 310 350	.350 .350 .042	383 416 441	.098 .098 .093
47.50	8.7 42.3 70.7	021 .014 041	072 072 220	052 015 078	157 169 199	091 045 108	096 108 125	015 071 152	054 060 077	1% 120 219	007 019 014	244 179 293	.025 .022 .010	29/i 224 149	.070 .0/4 .055
50.50	8.7 42.3 70.7	032 032 047	112 152 157	066 066 073	100 135 146	091 093 096	062 095 108	116 116 125	035 066 071	148 148 160	.002 027 035	187 191 197	.249 006 020	195 212 218	.053 .031 .016
53.50	8.7 42.3 70.7	-,021 -,021	029 029 078	F40	089 086 078	051 048	059 059 051	071 .050	037 037 037	086	012 012 01^	111 100	.00° 00% 009	-,120 -,105	.025 .019 .010
56.50	8.7 42.3 70.7	146 146 016	062 050 050	049 043 032	066 066 053	051 051 030	044 043 035	060 054 033	032 032 027	061 063 046	016 015 021	033 077 058	008 015 017	082 082 055	.011 .003
59.50	8.7 \$2.3 70.7	023 023 027	044 043 047	042 042 042	055 055 055	035 035 035	035 047	041 036 035	0% 07 036	049 048 044	015 013 014	0.2 0% 0%	014 017 029	053 054 052	.002 009 022

(f) M,0.82.

1	Percent								f attack,						
Sta-	funelage		1		2)		5				6		3
(in.)	radius	Upper	Lower surface	Upper surface	Lover surface	Upper nurface	Lover surface	Upper surface	Lower surface	Upper surface	Lover surface	Upper purface	Lover surface	Upper surface	lower surface
10	8.7 42.3 70.7	0.099 .081	0.018 .021 .018	0.064 .058 .053	0.021	0.044 .044 .042	0.036 .036 .031	0.025 .025 .029	0.047 .047 .042	0.003 .003	0.070 .059 .043	000	0.113 .077 .049	-0.0°4 400. -010.	0.120 .100 .059
15	8.7 42.3 70.7	.050 .045 .032	008 010 010	.029 .025 .014	013 019 015	.009 .009	.003 002 002	003 003 008	.013 .007 .003	030 030 024	.031 .014 .003	030 030 010	.0%) .051 .079	017 052 053	.07 ^q .04 ^q .017
50	8.7 42.3 70.7	.025 .018 001	025 025 025	0 004 015	030 033 037	013 013 019	019 019 024	030 030 030	007 013 019	047 047 052	.003 008 019	041 041 052	.042 .025 0	058 051 074	.048 .025 013
25	8.7 \$2.3 70.7	.012 ~.001 .100	032 032 037	011 024 030	041 041 041	024 030 030	030 030 030	035 040 040	072 074 030	052 053 053	011 019 030	0\1 05^ 055	.025 .004 ~.008	053 047 080	.011 .014 019
2^.50	8.7 42.3 70.7	.012 .007 004	026 026 .037	013 019 024	035 041 041	024 027 017	027 037 030	015 015 015	019 019 030	05? 05? 058	034 011 030	041 046 012	.036 .00 008	058 063 074	.039 .014 019
31.50	8.7 42.3 70.7	.014 .007 003	026 026 026	013 013 024	041 041 037	027 017 030	030 030 027	041 041 041	~.019 019 019	052 052 055	008 013 019	048 04° 0'7	.036 .025 .003	063 067 074	.044 .025 009
34.50	8.7 42.3 70.7	.039 .039 .023	032 026 026	.014 .011 .003	030 030 030	002 008 008	019 019 013	024 024 024	003 002	052 052 047	.020 .014 .003	052 052 052	. 069 . 053 . 036	069 074 074	.081 .059 .031
38.00	8.7 42.3 70.7	.056 .050 .089	081 024 089	.015 .014 .047	068 063 057	019 024 .009	030 024 008	052 063 030	.003 .009 .036	108 122 111	.037 .048 .075	143 165 184	.102 .104 .135	191 219 246	.120 .120 .147
41.50	8.7 42.3 70.7	.050 .050 .061	048 169 202	.003 .003 .003	123 140 156	046 052 057	068 074 085	096 107 013	019 024 024	17 ⁴ 191 22 ⁴	.031 .031 .042	253 279 331	.10° .102 .124	340 379 443	.125 .125 .153
44.50	8.7 42.3 70.7	.012 .007	191 202 245	041 041 052	162 169 200	090 096 110	101 107 019	140 151 173	052 055 074	224 182 263	.003 0 013	304 326 367	.069 .069 .062	418 448 484	.092 .092 .092
47.50	8.7 42.3 70.7	.001 .034 .021	180 185 218	041 008 074	157 167 184	015 041 118	107 118 129	134 079 169	063 074 035	200 137 241	019 0 041	164 164 304	.042 .036 .025	344 274 479	.059 .053 .048
50.50	8.7 42.3 70.7	015 015 025	103 141 147	055 055 068	096 134 140	0%5 085 038	063 096 107	118 118 129	041 074 085	163 163 174	011 011 052	184 184 195	.014 .014	219 229 233	.049 .017 .003
53.50	8.7 \$2.3 70.7	004	076 076 065	033 030	079 079 063	052	057 057 048	068 063	041 041 037	-,096 -,095	024 030 030	101 085	.014 .011 .009	124 109	.014 .011 .003
56.50	42.3 70.7	015 015 .003	049 041 035	041 035 023	061 060 050	048 041 030	050 046 041	059 057 041	041 041 035	078 074 047	019 019 019	066 050	.001 002 007	085 085 061	0 003 012
59.50	8.7 42.3 70.7	007 007 010	028 028 028	032 030 032	049 047 050	037 039 039	039 040 046	050 045 047	031 037 044	051 046 046	019 015 030	050 044 042	007 009 019	058 058 055	003 014 025

TABLE III. - CONTINUED

(g) M,0.84.

	Percent						Angle of	attack, de	SL400				
Sta- tion	fuselage		<u> </u>	L	ą	L	o.		2		4		6
(tn.)	radius	Upper surface	Lover surface	Upper surface	Lover surface	Upper aurface	Lover surface	Upper surface	Lower surface	Upper	Lover	Upper aurface	Lover
10	8.7 42.3 70.7	0.067 .062 .046	-0.007 003 007	0.060 .060 .099	0.017 .023 .023	0.040	0.049	0.028 .028 .028	0.060 .055 .049	0.006 .012 .012	0.082 .073 .055	-0.015 015 015	0.048 .082
15	8.7 42.3 70.7	.024 .021 .008	034 039 036	.023 .023 .017	015 015 015	.014 .014	.014 .006	010 010 004	.023 .012	023 023 031	.041 .028	OAA OAA OA7	.035
20	8.7 42.3 70.7	003 009 030	052 052 057	004 004 015	033 037 037	010 010 015	010 010 015	026 026 031	00A 010 015	-,042 -,042 -,045	.012 .006 015	-,058 -,056 -,069	.028
25	8.7 42.3 70.7	014 030 036	061 061 063	015 026 026	044 042 042	018 026 026	020 020	037 0A2 0A2	018 018 026	047 047 047	00A 010 023	058 069 074	002
2t.50	8.7 12.3 70.7	012 020	055 055 063	015 020 026	037 037 044	020 020	015 015 023	037 037 037	015 015 026	047 047 047	004 020	058 064 064	.017 .006 026
31.50	8.7 42.3 70.7	009 020 036	057 057 057	015 015 026	037 040 037	020 020 020	015 015 015	037 037 037	015 015 015	047 047 047	.006 004 013	-, 058 -, 058 -, 069	.023 .006 015
34.50	6.7 42.3 70.7	.013 .013 .002	057 052 049	.014 .006 .006	029 026 024	.006 .001 .001	-,00A .001 .006	021 021	.006 .006	037 037 037	.031 .023 .017	058 058 058	.052
35.00	8.7 42.3 70.7	.935 .029 .067	109 109 117	.014 .010 .049	063 058 047	015 020 -014	015 004 .017	058 069 042	.017 .023 .049	101 112 104	.055 .055 .092	155 177 186	.085
41.50	8.7 42.3 70.7	.029 .035 .040	193 198 236	.001 001 001	122 133 155	047 053 063	047 055 063	112 119 139	~.008 ~.010 ~.00Å	179 198 230	.039 .039 .060	274 301 355	.087
44.50	6.7 42.3 70.7	009 014 020	252 252 296	047 047 058	165 176 208	096 101 115	~.085 ~.090 ~.112	160 171 192	045 047 066	257 257 284	.009 .009 004	357 376 411	.055 .055
47.50	8.7 42.3 70.7	030 .008 052	229 236 269	053 015 079	160 176 198	093 047 122	090 101 119	155 096 192	058 066 079	219 152 26e	101 015 026	333 263 407	.026 .020 .012
50.50	8.7 42.4 70.7	047 047 063	144 182 190	066 066 079	101 139 149	090 090 101	055 090 101	133 153 144	037 069 079	165 171 179	004 033 047	220 220 231	.017 004 020
53.50	8.7 42.3 70.7	 036 036	106 106 095	037 037	079 079 069	047 037	047 047 042	 074 063	037 037 037	0.40 079	015 020 020	 118 101	004 004 004
56.50	8.7 42.3 70.7	0A1 0A1 048	093 089 082	037 037 060	116 111 107	042 042 027	042 037 033	058 058 034	025 025	066 047	026 026 026	083 080 053	004 010 014
51.50	8.7 42.3 70.7	052 050 056	072 072 072	086 086 088	097 097 097	035 034 034	030 033 035	035 035 035	-,022 -,023 -,029	048 047 047	024 026 037	047 047 047	008 015 026

(h) M,0.86.

	Percent	L						f attack, d	ugrees				
Sta- tion	funciago	<u> </u>	4		2	ļ	•		?		4		6
(in.)	radius	Upper eurface	Lower surface	Upper surface	Lower purface	Upp-r surface	Lower aurface	Upp-r surface	Low-r surfac-	Upper surface	Lower aurface	Upp r eurrace	l.cwer _purting
10	P.7 \$2.3 70.7	0.083 .076 .062	0.009 .009 .009	0.055 .055 .047	0.014 .017 .014	840.0 840. 840.	0.043 .043 .043	0,032 .035 .037	0.053 .053 .044	0.017 .017 .022	0.081 .074 .058	300,0 300,	6.115 .102 .074
15	8.7 42.3 70.7	.041 .033 .023	920 .022 .022	.014 .014 .008	018 018 018	.011 .011 .011	.011 .001 .003	.001 .001	.022	.087 .087 015	.043 .027 .017	015 015 015	.074 .0'0 .0'2
20	8.7 42.3 70.7	.009	040 040 050	008 018 028	039 239 044	009 015 020	015 020 025	023 023 027	009 009	035 035 041	.011 .001 015	038 041 046	.043 .017 .001
25	8.7 12.3 70.7	001 015 029	043 048	023 033 036	039 039 039	025 030 030	027 027 030	030 035 035	020 020 025	041 046 046	002 007	041 046 051	.025 .011 007
28.50	8.7 42.3 70.7	012 012	040 040 840.	023 028 033	044 049	@3 @5 @5	-,020 -,020 -,030	030 033 033	012 017 027	041 041 041	.001 006 020	035 041 048	000 025 035
31.50	8.7 42.3 70.7	001 004 019	043 043 043	023 026 033	044 044 044	023 023 025	023 025 025	033 033 033	015 020 020	0\1 0\1 0\1	.001 004 009	038 041 046	.040
#.50	8.7 42.3 70.7	.031 .031 .013	040 036 033	.003 .003 007	033 028 028	.001 204 004	00% 00%	012 015 015	300. 004 100.	030 030 030	.032 .022 .017	035 035 035	.071 500. 640.
3A.00	f.7 42.3 70.7	52 .046 .0(3	0°1 0°1 0°3	.006 .003 .045	063 160 147	012 020 .014	015 009 .011	-,041 -,051 -,025	.611 .017 .043	027 098 014	.053 .050 .102	072	.105 .110
¥1.50	8.7 12.3 70.7	.041 .046 .055	180 191 272	013 013 013	122 138 154	048 051 061	056 061 072	093 103 113	017 020 020	144 183 212	.043 .043 .053	248 261 321	.105 .105
N.5c.	€.7 4:.3 70.7	001 001 012	: 30 :51 266	660 665 073	175 185 217	106 106 124	103 103 179	- 156 - 155 - 176	656 061 .66:	23E 243 277	.006 09	337 352 3£4	.169
k7.50	6.7 42.3 70.7	019 .017 043	842 842 832	070 0°3 160	1f0 19k 217	103 656 137	168 119 139	150 693 166	-,172 -,184 -,196	235 165 296	.015 025 035	366 266 425	.035 .4 13
50.50	£.7 42.3 70.7	636 03£ 048	138 160 160	061 061 101	117 154 164	-,098 -,108 -,113	667 163 113	129 130 139	c46 079 009	170 176 183	009 641 651	238 248 248	.032 .0.6 009
53.50	€.7 · №2.3 70.7	022 022	096 093 078	-,049 -,046	089 086 070	-,051 -,041	056 056 046	067 059	041 041 037	087 075	020 020 020	163 (62	.014 .011 .006
56.50	£.7 42.3 70.7	0:5 625 010	042 055 050	049 649 629	061 060 05	046 041 042	021 026 020	059 051 041	003 006 009	067 061 027	042 641 03?	061 039	639 639 628
59.50	€.7 \$2.3 70.7	0°1 0°1 0°6	C41 C41 C42	039 039 039	c48 c49	- (A2 - (A1 - (A1	618 021 630	047 041 039	06 67 626	032 037 032	031 032 041	-,(A2 -,0A1 -,(A1	037 037

TABLE III .- CONTINUED

(i) M,0.88.

							Angle of	attack, de	grees				
Sta-	Percent fuscione			-	e		0		2	1			5
tion	radius	Upper	Lover	Upper	Lover	Upper	Lower	Upper	Lower	Upper	Lover	Upper	Lover
(in.)		surface	surface	surface	surface	surface	surface	surface	surface	eurface	surface	surface	surface
10	6.7 42.3 70.7	0.090 .088 .072	0.021 .021 .021	0.074 .069 .064	820.0 820.	0.041 .041 .041	0.031 .031 .029	0.020 .026 .026	0.016 .016 .036	0.014 .014 .014	0.081 .078 .060	-0.005 005 005	0.108 .092 .067
15	8.7 k2.3 70.7	.047 .042 .032	009 01k 01k	.028 .028 .023	002 012 005	.002 .005	005 008 008	015 015 010	.015 .002 .002	018 015 018	.0% .030 .019	036 036 036	.067 .041 .020
20	8.7	.021	030	.003	027	- 020	033	036	015	039	.01%	049	.031
	\$2.3	.011	030	002	027	- 026	033	036	020	042	.00Å	053	.015
	70.7	~.004	035	012	033	- 033	036	036	031	042	011	061	015
25	8.7 42.3 70.7	.006 006 014	037 037 040	007 027 062	038 038 038	036 041 041	041 041 041	-,046 -,051 -,051	031 031 036	688 1 688	.036 011 021	051 061 061	.015 .005 020
28.50	2.7	.006	030	007	033	036	036	-,046	026	042	.009	046	.020
	42.3	004	030	012	033	036	036	-,046	026	042	-,004	051	.005
	70.7	012	040	022	038	036	041	-,046	036	047	-,021	056	-,015
31.50	E.7	.006	030	007	033	036	036	046	026	CA2	.004	046	.026
	\$2.3	.001	030	01?	033	036	036	046	026	042	001	046	.015
	70.7	009	030	0.*	029	036	036	046	026	045	011	056	~.005
34.50	£.7	.039	030	170.	072	-,010	0?0	076	-,005	032	.035	036	.061
	42.3	.035	019	370.	017	-,010	015	026	-,005	032	.619	036	.046
	70.7	.021	019	800.	012	-,010	015	026	-,005	032	.919	036	.029
3£.00	8.7 \$2.3 70.7	.060 .057 .098	073 073 973	320. 8:0.	050 043 033	015 023 .005	-,029 000	056 061 036	.005 .015 .046	083 09€ 083	.060 .071 .101	118 138 113	.097 .165 .138
¥1.50	8.7	.052	169	800.	119	053	07%	-,061	-,015	175	.050	251	.097
	\$2.3	.053	183	300.	131	056	08%	-,123	-,020	190	.05.	275	.097
	70.7	.069	210	300.	149	064	087	-,136	-,020	221	.060	3°3	.118
44.50	E.7	.006	237	043	180	111	126	184	064	-,257	.009	3+3	.056
	\$2.3	.001	249	045	190	118	133	190	067	-,267	.009	359	.056
	70.7	002	265	056	215	133	154	213	067	-,298	001	389	.046
47.50	£.7 42.3 70.7	009 .011 040	^67 255 331	05 017 0£3	**03 **15 **43	- 123 - 077 - 156	138 154 174	195 133 241	-,0£2 092 -,10£	290 216 241	016 037	389 297 446	.020 .015 .005
50.50	8.7	033	160	067	-, 171	~. 118	097	- 160	067	223	011	-,420	.015
	42.3	035	203	973	-, 150	121	-:128	- 166	09	231	042	-,435	.026
	70.7	050	206	973	-, 171	131	138	- 174	054	236	052	-,456	033
53.50	E.7 42.3 70.7	014 01"	071 076 070	033 079	078 073 663	 067 096	072 077 061	cb7 072	053 053 046	073 063	021 221	-, 173 -, 108	-,005 -,010 -,015
56.50	F.7	072	049	036	033	459	052	-,170	053	-,067	613	074	-,602
	\$2.3	019	048	033	032	956	745	-,567	65°	-,062	013	072	-,565
	70.7	-,034	039	033	009	903	638	-,016	043	-,035	613	045	-,566
59.50	€.7 k2.3 70.7	039 03P 032	03: 030 046	040 030 037	002 009 033	013 013 014	631 034 034	0·9 029 031	042 042 643	034 034 033	-,f11 -,613 -,003	037 037 035	006 016

(j) M,0.90.

		Т					Anexe of	stack, d	egrove				
Sta-	Percent fuselare		4	-	9		0		`				6
tion (in.)	radius	Upper	Lower surface	Upper surface	Lower surface	Upper eurface	Lover surface	Upper surface	Lover surface	Upper surface	Lover surface	Upp-r aurface	Lower surface
10	8.7 42.3 70.7	0.097 .092 .077	0.027 .017 .014	0.062 .06 .055	0.025 .015 .015	0.056 .056 .056	0,051 .051 .046	0.041 .041 .046	0.066 .066 .099	0.024 .029 .029	0.093 .065 .060	0.0% .02k .02k	0.137 .122 .092
15	8.7 42.3 70.7	.057 .047 .037	006 013 013	.018 .016	010 015 012	.017 .017 .017	.017 .007 .010	.007 .004 .007	.034 .0:2 .017	011 011 011	.039 .039 .079	-,rc6 -,06 -,06	.090 .073 .053
20	€.7 \$2.3 70.7	.017	028 02f 033	010 013 072	035 035 035	010 013 013	013 613 616	020 070 023	.007 003 003	631 031 036	.019 .009 -,000	019 026 028	.063 .043 .019
25	£.7 42.3 70.7	.007 -,003 -,013	033 033 038	-,020 -,030 -,133	(*45) (*45) (*45)	02f 02f 03	023 023	030 033 033	013 013 016	-,036 -,041 -,641	.004 001 610	021 026 030	.043 .036 .009
28.50	8.7 42.3 70.7	.007 .003 008	0% 0% 036	00°2 025 03	035 038 045	0°3 0°3	018 018 023	028 033 033	-,003 -,006 -,018	014 016 018	.009 ,006 011	016 021 026	.053 .040 .014
31.50	C.7 42.3 70.7	.007 .007 008	023 023 026	025 035	035 035 035	023 023 023	018 018 018	œ6 œ8	003 010 010	631 031 036	.009 .004 061	~,009 -,011 -,021	.056 .043 .024
34.50	8.7 42.3 70.7	.017 .037 .007	016 013 000	.010 .005	027 020 015	.007 .007 .004	.00? .002 .007	003 003 003	017 017 017	01 012 012	.039 .039 .029	.004 .004 .001	.092 .076 .060
38.00	8.7 42.3 70.7	.067 .064 107	063 063 063	.020 .015 .055	045 035 025	002 co6 .027	003 cc7	033 038 013	.032 .041 .066	065 075 065	.668 .678 .098	175 194 101	.132 .135 .171
₩1.50	E.7 42.3 70.7	053 053 067	160 17: 197	005 005 005	115 125 140	042 049 055	049 057 062	09° 10° 121	.007	-,160 -,170 -,199	.059 .059 .063	207 232 226	.125 .132 .151
¥4.50	6.7 42.3 70.7	.007 .004 003	232 247 277	005 005 075	182 188 215	112 115 131	109 112 131	171 181 200	04? 047 063	239 252 279	.019 .019 .00.	301 315 345	.083 .083 .073
47.50	8.7 42.3 70.7	018 .122 043	292 292 332	025 035 115	232 245 270	131 077 171	136 100 168	210 111 050	072 062 687	- ::89 - ::09 - :338	011 021 036	259 251 399	,043 ,040 ,024
50.50	6.7 42.3 70.7	043 043 058	279 337 352	195 195 108	170 215 235	-, 121 -, 131 -, 141	092 128 141	200 210 220	047 080 092	- 333 - 348 - 309	- 011 - 011 - 056	\$18 \$33 \$66	.033 .004 016
53.50	8.7 42.3 70.7	 018 018	093 093 078	552 045	090 085 075	055 047	057 057 042	072 057	033 033 033	093 -,080	016 021 021	173 161	.014 .004 -,006
56.50	6.7 42.3 70.7	023 018 .002	041 039 030	045 045 028	060 056 049	042 042 021	041 040 032	052 047 025	-,022 -,020 -,020	061 051 022	010 010 007	040 035 030	-,u01 0 002
59.50	8.7 \$2.3 70.7	003 005 009	-,020 -,020	023 023 032	030 047 049	031 031 031	021 031 008	035 030 030	020 020 030	-,030 -,022 -,022	012 005 020	020 019 017	.002 .001 010

TABLE III. - CONCLUDED

(k) M,0.92.

						_	Angle of	attack, des					
Sta-	Percent redius			_	5	1)		5			6	
(in.)	fuselage	Upper surface	Lover surface	Upper surface	Lover surface	Upper surface	Lover surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface
10	8,7	0.115	0.048	0.070	0.031	0.067	0.066	0.053	0.082	0.033	0.109	0.029	0.135
	42.3	.100	-053	.070	.032	.068	.066	.054	.082	.037	.100	.030	.125
	70.7	.101	-048	.062	.031	.068	.057	.054	.073	.037	.080	.030	.096
15	£.7	.071	.019	.029	006	850.	.026	.015	.044	.003	.067	0	.091
	42.3	.067	.014	.033	008	850.	.017	.015	.034	.003	.051	003	.073
	70.7	.056	.016	.021	006	850.	.022	.018	.032	.003	.042	003	.050
50	8.7 \$2.3 70.7	.042 .034 .019	002 002 007	003 006 017	027 027 035	001 001 010	002 004	010 012 015	.015 .007 .002	019 019 026	.032 .022 .005	019 020 028	.058 .041 .019
25	9.7	.027	010	017	037	012	014	017	003	026	.016	019	.038
	42.3	.017	007	025	037	016	014	024	003	029	.013	020	.029
	70.7	.008	012	027	037	016	014	023	009	029	001	029	.010
28.50	8.7	.027	002	017	030	012	010	008	.005	019	.022	013	.048
	\$2.3	.022	003	019	030	014	010	008	.002	025	.016	018	.039
	70.7	.013	011	026	037	014	016	022	~.009	026	001	025	.010
31.50	A.7 12.3 70.7	.029 .027 .016	.014 0	016 018 065	027 027 027	~.011 ~.011 ~.014	007 011 010	015 015 015	.005 .004 .001	016 016 023	.024 .018 .008	004 009 017	.049 .039 .021
11.50	9.7 42.3 70.7	.066 .057 .048	.015 .018 .019	.021 .017 .012	009 008 007	.019 .017 .017	.017 .017 .017	.015 .008 .008	.031 .028 .026	.004 .004	.052 .049 .042	.010 .011 .010	.087 .077 .058
38.00	₹.7	.0%	021	.031	029	.014	.016	014	.045	045	.087	058	.127
	42.3	.0.4	021	.023	022	.013	.026	017	.053	055	.099	071	.135
	70.7	.124	019	.070	009	.046	.046	.006	.082	045	.128	073	.169
¥1.50	P.7 42.3 70.7	.071 .075 .060	117 126 149	400. 400.	103 115 126	029 031 041	041 042	076 092 106	.015 .014 .016	140 152 184	.073 .074 .088	183 205 245	.12) .125 .115
\$4.50	8.7	.016	069	057	173	098	098	153	042	223	.026	277	.077
	42.1	.013	098	059	181	10,	101	162	043	234	.026	290	.077
	70.7	.008	135	074	201	119	125	179	058	258	.012	318	.068
L7.50	8.7	012	243	091	232	234	157	200	073	273	014	327	.033
	\$2.3	.029	244	017	241	079	156	063	032	193	019	240	.025
	70.7	041	254	125	263	176	176	211	099	321	036	376	.010
50.50	8.7	0ln	265	110	2½9	166	118	256	052	346	016	395	.011
	42.3	041	321	115	301	176	167	266	091	356	048	413	022
	70.7	050	340	132	329	190	195	265	103	385	069	437	041
51.50	8.7 42.7 70.7	012 012	129 121 099	046 046	115 110 089	048 039	050 050 011	073 059	~.033 ~.033 ~.026	-, 191 , 149	022 026 031	.059	.013 020 039
330	8.7	007	029	045	043	033	021	0A2	012	046	004	060	013
	42.3	004	025	037	038	029	021	033	007	044	004	060	014
	70.7	.005	019	016	033	006	016	007	002	-:.014	004	.001	023
59.50	8.7 42.3 70.7	0 0005	019 010 010	023 023	00A 032 033	016 014 014	.003 012 021	-,012 -,012 -,010	.008 002 010	010 006	:006 -:001 -:012	004 004 006	.007 004 014

(1) M,0.94.

3ta.	Percent						Angle of a	ttack, deg					
	fucelare		<u> </u>		2		0		2		4		6
(in.)	rediva	U jer : urface	Love	Upper	Lover	Urper nurface	Lower	Upper surface	Lover surface	Upper curface	Lower surface	Upper	Lower
10	8.7 42.3 70.7	0.152 -165 -136	0.095	0.093 .093 .0%	0.058 .061 .058	0.093 .095 .098	0.089 .091 .0°7	0.090 .092 .092	0.118 .116 .105	0.045 .048 • .050	0.116 .108 .088	0.057 .058 .055	0.168 .157 .127
15	1.7 k2.3 70.7	.107 .101 .0%	.050 .048 .050	.05h .047 .046	.018 .019	.055 .054 .052	.053 .046 .047	.053 .053 .055	.075 .067 .067	.012 .010	.070 .053 .050	.027 .024 .021	.123
20	8.7 42.3 70.7	.018 .068 .013	.030	.019 .017 .063	00h 005 009	.020 .020	.02 .019 .018	.027 .025 .021	.045 .042 .036	012 015 017	.039 .018	.008 .008 001	.090 .072 .046
25	6.7 *2.3 70.7	.050 .048 .040	.022 .022 .021	.006 003 003	018 016 019	.015 .005 .007	.008 .009 .008	.018 .008 .009	.028 .028 .025	016 025 026	.022 .014 .003	.009 0 ~.004	.067 .056 .035
28.50	8.7 42.3 70.7	.059 .051 .041	.031 .026 .022	.002 002	008 009 015	.012 .008 .008	.018 .017 .008	.018 .017 .013	.036 .034 .027	015 016 022	.024 .020 .003	.017 .010 .005	.067 .065 .037
31.50	8.7 42.3 70.7	.051 .057 .049	.037 .035 .032	.008 .005 001	002 002	.017 .017 .011	.018 .018 .018	.019 .020 .018	.037 .031 .031	007 007 015	.030 .022 .012	.027 .022 .014	.082 .066 .048
34.50	8.7 12.3 70.7	.101 .0/4 .003	.052 .057 .059	.046 .040 .036	.019 .020 .0:5	.047 .046 .046	.045 .046 .047	.052 .047 .047	.111 .111 .110	.016 .018 .018	.061 .060 .050	.047 .047 .046	.114 .104 .090
38.00	8-7 42-3 70-7	.125 .120 .153	.022 .022	.057 .056 .094	.006 .014 .025	.048 .044 .061	.047 .057 .033	.031 .027 .055	.084 .093 .119	034 034 020	.098 .107 .137	.092 029 033	. 161 . 169 . 205
41.50	8.7 42.3 70.7	.113 .113 .118	072 072 110	.076 .076 .079	0% 076 091	.004 001 008	001 008 010	029 037 049	.055 .049 .055	118 109 177	.080 .000 .090	144 168 207	.158 .159 .178
46.50	5.7 42.3 70.7	.050 .048 .010	1 ¹ 7 155 185	038 041 051	133 142 174	070 076 089	067 067 090	103 112 130	006 008 014	199 219 232	.027 .027 .012	196 215 281	.105 .105 .095
47.50	8.7 42.3 70.7	.013 .055 015	206 212 245	078 026 114	193 103 17	115 055 151	123 132 151	151 065 191	056 066 003	159 175 298	020 011 045	291 205 342	.0*4 .046 .029
50.50	8.7 42.3 70.7	035 039 057	227 216 306	143 159 178	^1. 75 302	139 198 217	149 198 226	2:16 233 155	075 122 119	3"7 337 360	043 082 102	357 375 303	.020 012 038
53.50	8.7 42.3 70.7	007 011	235 220 172	070 057	247 237 187	105 095	112 104 076	177 125	038 038 032	319 327	047 054 063	39k 339	019 031 048
56.50	8.7 \$2.3 70.7	.008 .011 .020	007 007 007	033 029 012	030 030 029	-,009 -,003 .011	004 002 .005	009 003 .003	009 004 0	052 080 071	044 045	170 164 041	033 038 052
59.50	8.7 \$2.3 70.7	.021	.053 .031 .031	011 011 011	.017 010 011	.005 .009 .008	.033 .007 .005	.008 .009 .007	.033 .007 .005	016 019 021	007 026 013	01% 019 023	.006 014 032

TABLE IV.— PRESSURE COEFFICIENTS ON A FUSELAGE IN COMBINATION WITH A WING HAVING A SWEEPBACK ANGLE OF 45° AND AN ASPECT RATIO OF 6.

(a) M,0.40.

tion	Percent fuselage				- 1	Angle of	attack, deg		1	-	11.1	- 6	
ta.)	radine.	Upper	Lower surface	Upper surface	Lower	Upper surface	Lower	Upper surface	Lover surface	Upper curface	Lower	Upper surface	Lower surfaço
.0	8.7 42.3 70.7	0,074 .068 .061	0,003 .003 .003	0.068 .058 .045	0,013 ,016 ,016	0.039 .039 .034	0.034 .034 .032	0.029 .029 .029	0,052 .048 .039	0.010 .010	0.068 .061 .062	0,003 003 003	0,016 .090 .058
15	8.7 \$2.3 70.7	.042 .035 .026	-,023 -,023 -,023	.029 .029 .019	006 013 010	.010 .010 .006	.006 .003 .003	.003 .003	.019 .010 .006	023 019 019	.035 .019 .006	019 019 022	.074 .088 .026
20	8.7 \$2.3 70.7 ·	.023 .016 .003	003 003 003	.006 .006	029 029 029	003 006 013	013 019 023	-,026 -,023 -,026	.003 .003 003	029 029 029	.016 .006 .010	022 022 038	.045 .035 .010
25	8.7 \$2.3 70.7	,019 ,006	-,003 -,003 -,003	.003	029 029 029	019 019 023	-,023 -,026 -,003	-,029 -,029 -,029	003 019 023	035 035 035	,006 ,003 -,023	038 038 094	.012 .019 0
28.50	8.7 42.3 70.7	.019 .006 .003	035 035 042	.003 003 006	029 029 029	013 019 016	016 019 026	029 026 029	.003 .003 010	035 035 035	.019 .003 003	051 051 054	.048
31.50	8.7 42.3 70.7	.003 .029 .013 .010	.061 .061 045	.003 .003 .006	042 035 029	023 023 006	026 029 013	035 032 029	.003 003 ,006	055 055 055	.019 .006 .010	067 071 080	.051 .042 .042
34.50	8.7 12.3 70.7	.039 .035 .042	-,065 -,068 -,068	.019 .013 .010	058 055 055	010 013 013	026 026 019	032 039 052	.003 .003 .019	039 068 090	,029 ,019 ,039	083 099 135	.074 .067 .077
38.00	8.7 \$2.3 70.7	.029	068 068 119	003 019	074 084 090	-,032 -,042 -,045	035 035 035	-,068 -,087 -,090	003 010 .003	094 110 126	.019 .019 .035	119 112 179	.07% .07% .090
\$1.50	8.7 12.3 70.7	.035 .010 .035 .035	-,068 -,110 -,126	013 023 029	077 093 096	039 045 061	042 055 061	077 084 100	-,023 -,026 ,029	09A 110 126	.006 .003 .003	-,119 -,144 -,173	840. 840. 840.
¥¥.50	8.7 \$2.3 70.7	.003 003 003	-,0% -,0% -,126	029	077 087 122	052 052 061	-,045 -,052 -,087	077 077 094	026 026 055	09A 09A .203	.003 .003 023	-,119 -,119 -,151	.010 .010 013
17.50	8.7 \$2.3 70.7	.010 .019 003	077 087 087	035 023 .006 003	061 061 061	032 013 055	035 042 042	058 029 042	029 026 026	-,077 -,035 -,087	.003 003 006	087 05A 099	.035 .035 .035
50.50	8.7 \$2.3 70.7	-,003 -,003 -,013	067 032 061 058	023 023	029 061 051	035 032 032	029 032 032	055 052 045	0 029 029	061 061 061	.006 ~,023 023	077 077 067	.035 .013 .010
53.50	70.7 8.7 42.3 70.7	-,013 -,013 -,013	055 055 055 039	-,023 -,023	039 035' 029	029 029	029 029 029	035 029	026 026 026	055 045	019 023 023	051 048	,010 ,010 ,003
%.50	70.7 8.7 \$2.3 70.7	013 023 019 013	-,039 -,029 -,026 -,026	023 023 023	029 032 026 030	-,029 -,029 -,029 -,019	-,029 -,026 -,026	035 035 026	-,029 -,019 -,026	045 035 013	010 010 023	045 045 026	-,003 -,003 -,010
59.50	70.7 8.7 42.3 70.7	-,013 -,010 -,010 -,019	-,026 -,019 -,019 -,026	-,006 -,006 -,019	-,035 -,019 -,016 -,023	-,013 -,013 -,019	026 019 019 029	013 013 019	-,026 -,026 -,019	-,016 -,016 -,016	003 003 023	-,023 -,023 -,023	,003 ,003 -,026
	70.7	019	1 -,020	-,049	3	02)	/						
Sta-	Percent fuselage radius		. —		10	Angle 0	r ettack, de	grees			6	1	3
tion			8										
(in.)			Lover	Upper	Lower	Upper surface	Lower	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover surface
(in.)		Upper eurface -0,023 -,026 -,026	Lower	Opper eurfece -0.029 029 058	Lower surface 0.155 .129 .058	Opper surface -0.035 055 087	Lower	-0.052 068 113	-0.203 139 039	-0.058 087 126	Lower eurface 0.235 ,165 ,035	Upper surface -0.026 097 126	0.268 .171 .023
(in.)	8.7 \$2.3 70.7	Upper eurface -0.023 026	Lover		Lower	Opper	Lower	-0.052 068 113 061 094 126	-0,203 -139 039 .165 .106 .010	-0.058 087 126 061 074 132	Lover surface 0.235 .165 .035 .197 .132 .003	Upper eurface -0.026 097 126 061 139 126	0.268 .171 .023 .229 .135
(in.)		Upper eurface -0.023 026 026	Lower surface 0,135 ,100 ,064	Opper eurfece -0.029 029 058	Lower surface 0.15; .129 .058 .116 .074 .013 .100 .058 .003	Opper surface -0.035 055 087	1.00er surface 0.177 .135 .06A .141 .100 .013 .116 .071 010	-0.052 068 113 061 094 126 061 103 126	-0,203 -,139 -,039	-0.058 087 126 051 074 132 065 126 148	Lover gurface 0.235 .169 .035 .197 .132 .003 .168 .100 .003	Upper eurface -0.026 097 126 061 139 126 065 158 158	0,268 ,171 ,023 ,229 ,135 0 ,200 ,119 ,029
(in.) 10	8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	Upper eurface -0.023 026 026 .293 .289 .267	Lower surface 0.135 .100 .064 .087 .071 .029	Oppor eurfece -0.029 029 058 061 045	Lower surface 0.155 .129 .058 .116 .07k .013	Upper surfece -0.033 055 087 097 064 090	10ver surface 0.177 135 .06k .141 .100 .013 .116 .071 010	-0.052 068 +.113 061 126 061 103 126 090 139 119	-0.203 -0.39 -0.39 -0.039 -0.00 -0.0	-0.058 087 126 061 074 132 065 126 138 094 158 158	Lover eurface 0.235 1.69 .035 1.197 .132 .003 .168 .100 .003	Upper surface -0.026 -0.097 -1.126 -0.61 -1.139 -1.126 -0.65 -1.158 -1.158 -1.150 -1.190 -1.187	.0268 .171 .023 .229 .135 .0 .200 .119 .009 .109
(in.) 10 15	8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	Upper eurface -0.023 026 026 026 293 .289 .267 .270 078 071 058	Lover surface 0.135 .100 .064 .087 .071 .029 .071 .039 .005	Upper eurfece -0.029029058061065059059061065090106126	Lower surface 0.15; .129 .058 .116 .074 .013 .100 .058 .003	Opper eurface -0.033053057067090090119071101122093129	Lower murface 0.177 .135 .066 .141 .100 .013 .116 .071 .010 .125 .071 .023 .137 .003 .139 .077 .003 .139 .007 .003 .139 .007 .003 .139 .007 .003 .139 .007 .003 .139 .007 .003 .139 .007 .003 .139 .007 .003 .139 .1	-0.052 068 +.113 061 094 126 061 103 126 109 139 119 123 123 181 184	-0.203 -0.203 -1.139 -0.339 -1.65 -1.06 -0.10 -1.132 -0.77 -0.026 -0.029 -0.029 -0.029	-0.058 087 126 061 074 132 065 148 094 158 158 158 159 126	Lover eurface 0.235 .165 .035 .177 .132 .003 .168 .100 .003 .155 .100029 .197 .081029	Upper eurisce -0.026 051 126 051 126 159 159 159 190 187 190 187	0.268 .171 .023 .289 .135 0 .200 .119 029 .197 .100 032
(in.) 10 15 20	8.7 42.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	Upper eurface -0.023 026 026 026 .293 .289 .267 .270 058 071	Lower surface 0.135, 100 0.064 .087 .071 .029 .071 .039 .005	Upper eurfece -0.029 -0.051 -0.051 -0.051 -0.051 -0.052 -0.054 -0	Lower surface 0.15% .129 .058 .116 .07% .013 .100 .058 .003 .003 .004 .042023	Upper eurface -0.037 -057 -057 -057 -059 -054 -090 -119 -101 -122 -093 -129 -154 -154 -159 -153	1000 murrer murr	-0.052 -0.052 -0.051 -0.051 -0.051 -1.051 -1.051 -1.051 -1.051 -1.051 -1.195 -1.195 -1.191 -1.181 -1.184 -1	-0.29 -0.19 -0.19 -0.19 -0.19 -0.10 -0.10 -0.10 -0.00	-0.0% -0.0%	Lover eurface 0.235.165.035 .197 .132.003 .100 .003 .100 .003 .100 .009 .009 .009 .009	Upper euritor	
(in.) 10 15 20 25 28.50	8.7 12.3 70.7 8.7 12.3 70.7 8.7 12.3 70.7 8.7 12.3 10.7 12.3 10.7	Upper eurface	Lower surface 0.135 .100 .064 .087 .071 .029 .071 .039 .005 .061 .039 .010 .071 .039 .000	Upper eurfece -0.029029058061065059059061065090106126	Lower	Opper eurice	Lower surface 10 177 139 100	-0.052 -0.052 -0.053 -1113 -0.051 -0.051 -1.051 -1.051 -1.052 -1.152 -1.153 -1.153 -1.153 -1.153 -1.154 -1.154 -1.255 -1.255 -1.256 -1.	-0.201 -0.197 -0.197 -0.197 -0.197 -0.197 -0.006 -0.192 -0.006 -0	-0.98 -0.97 -126 -0.61 -0.61 -0.74 -1.12 -0.62 -1.148 -0.94 -1.159 -1.159 -1.159 -1.190 -2.10 -2.21 -2.21 -2.21 -2.21 -2.21 -2.21 -2.21 -2.21	Lover euriface 0.235	Upper eurites	0,268 0,269 1,171 002 202 1,135 0 200 1,109 1,002 1,109 1,002 2,109 1,002 2,109 1,003 2,209 1,003 2,209 1,003 2,209 1,003 2,003
(in.) 10 15 20 25 28.50	8.7 12.3 70.7 8.7 42.3 70.7 8.7 12.3 70.7 8.7 12.3 70.7 8.7 42.3 70.7 8.7 42.3 70.7	Upper eurisce	Lower	Upper eurrece	Lower earfiect Lower earfield Lowe	Upper earlies -0.033 -0.055 -0.057 -0.059 -0.090 -0.119 -0.090 -0.119 -0.103 -0.122 -0.033 -0.129 -0.029 -0	Lover Earlie Lover Lover Earlie Lover Earlie Lover L	-0.092 -0.082 -0.083 -0.094 -0.094 -0.094 -1.095 -1.126 -0.090 -1.139 -1.127 -1.181 -1.190 -2.165 -2.191 -2	-0.201 -0.302 -0.303 -0	-0.98 -0.67 -1.26 -0.61 -0.74 -0.74 -1.18 -0.94 -1.19 -1.19 -1.19 -1.19 -1.20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -	Lover eurice (12 to 12 t	Upper eurite	0.269 0.269 1.171 .023 2.293 1.135 0 0 1.197 1.002032032 1.32033 1.32033 1.32033 1.32 2.335 1.32 2.335 2.
(in.) 10 15 20 25 28.50 31.50	8.7 \$2.7 70.7 6.7 42.3 70.7 8.7 42.3 70.7 8.7 8.7 8.7 8.7 42.3 70.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8	Upper	Lower eures of the control of the co	Upper eurren	Lover eurites (1.152) 1.152 1.152 1.153 1.153 1.153 1.153 1.153 1.153 1.153 1.153 1.153	Upper eurice -0.033 -0.057 -0.057 -0.057 -0.057 -0.050 -0.	- Lower surface of the control of th	-0.092 -0.092 -0.093 -1113 -0.094 -1205 -0.090 -1205 -	-0.203 -0.197 -0.19 -0.19 -0.19 -0.19 -0.19 -0.19 -0.19 -0.10 -0.19 -0.06 -0.0	-0.098 -0.097 -0.186 -0.017 -0.186 -0.017 -0.196 -0.196 -0.196 -0.197 -0.197 -0.197 -0.207 -0	Lower Control Contro	Upper eurite	
(in.) 10 25 28.50 34.50 38.00	6.7 \$2.7 \$	Upper eurisce	Lower	Upper eurite 1	Lower earfiect Lower earfield Lowe	Oper curries	Lower Colored Colore	-0.092 -0.093 -1113 -0.013 -0.013 -1014 -1024	-0.201 -0.302 -0.303 -0	-0.098 -0.097 -1.080 -0.097 -1.094 -0.097 -1.199 -1.199 -1.199 -1.199 -1.201 -2.207 -2	Lever Leve	Open 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.268 0.268 0.269 0.268 0.268 0.269
(in.) 10 15 20 25 28.50 31.50 38.50	8.7 10.7 1	Upper	Lever Leve	Upper eurren	Lower eurited (1955) 125 125 125 125 125 125 125 125 125 125	Oper curries of the c	Lower Control Contro	-0.092 -0.092 -0.083 -1113 -0.061 -0.094 -1.094 -1.095 -1.095 -1.095 -1.193 -1.193 -1.194 -1.195 -1.295 -1.	-0.203 -0.197 -0.303 -1.197 -0.303 -0.196 -0.305 -0	-0.98 -0.661 -0.661 -0.661 -0.662 -0.	Lower Lowe	0,006 -0,006 -0,006 -0,006 -0,006 -0,006 -0,006 -0,006 -0,006 -0,006 -1,	200
(1n.) 10 15 20 25 28.50 31.50 38.50	6.7 10.7 1	- 190 - 190	Lever surface 0.135 1.004 1.005 1.00	Upper eurite 1	Lever varies of 112 control of 122 c	Oper curries	Lower Control Contro	-0.092 -0.093 -1113 -0.013 -0.013 -1014 -1024		-0.98 -0.96 -1.06 -0.07 -0.06 -0.07 -0.06 -0.07 -0.09	Lord Lord Lord Lord Lord Lord Lord Lord	Dept. Dept	######################################
(in.) 10 15 20 25 28.50 31.50 36.00 47.50	6.7 70.7 42.3 70.7 5.7 42.3 70.7 70.7 5.7 42.3 70.7 42.3 70.7 6.7 42.3 70.7	Upper Uppe	Lower nurface 0.139	Opport	Control Cont	Oper curries of the c	Lower Control Contro	-0.092 -0.092 -0.083 -1113 -0.061 -0.094 -1.094 -1.095 -1.095 -1.095 -1.193 -1.193 -1.194 -1.195 -1.295 -1.	- 200 - 200	-0.056 -0.051 -0	Lower Control of the	Upper	
(in.) 10 15 20 28.50 31.50 38.00 41.50 47.50	6.7 70.7 42.3 70.7 42.3 70.7 8.7 42.3 70.7 6.7 42.3 70.7 6.7 42.3 70.7 6.7 42.3 70.7 6.7 42.3 70.7 6.7 42.3 70.7 6.7 42.3 70.7 6.7 42.3 70.7 6.7 42.3 70.7 6.7 42.3 70.7 6.7 42.3 70.7 6.7 42.3 70.7 6.7 6.7 42.3 70.7 6.7 42.3 70.7 6.7 6.7 6.7 42.3 70.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6	- 100 - 100	Lower	Dype	Lower	Opport O	Lower Control Contro	-0.092 -0.092 -0.093 -0.013 -0.011 -0.011 -0.011 -0.011 -0.011 -0.001 -0.011 -0.001 -0	eurfress	-0.98 -0.96 -1.06 -0.07 -0.06 -0.07 -0.06 -0.07 -0.09	Lower	Dept. Dept	######################################

TABLE IV. - CONTINUED

(b) M,0.60.

		1					Ang	o of att	ck, degr	***							
Sta-	Percent fuselses			-					2		١.		5		5	1	0
tion (in.)	redius	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower murface	Upper surface	Lower surface
10	8.7 12.3 70.7	0,085 .082 .068	0.015 .021 .013	0.068 .06A .059	888 888 8	0.049 .053 .050	0.040 042 040	0.030 .031 .033	0.059 .060 .050	0,017 ,019 ,022	-0.010 010 009	0 0 .002	0,110 .096 .072	-0.00A 002 002	0,104 ,090 ,069	-0.019 018 020	0.120 .100 .062
15	8.7 k2.3 70.7	.060 .050 .039	-,007 -,013 -,002	.038 .032 .024	-,002 -,006	.025 .028 .020	,016 ,012 ,011	.019 .010 .012	.033 .025 .023	.082 .079 .061	.050 .041 .030	019 019 017	.079 .061 .0A1	029 025 031	.071 .055 .030	-,040 -,047 -,055	.083 .060 .023
20	8.7 42,3 70.7	.032 .025 .028	027 022 021	.060 .065	.030 .029 .030	-,005 -,012	017 017 015	010 010 015	,007 ,006 ,006	027 029 031	.018 .010 -,020	018 010 020	.072 .099 .032	- 020 - 021	.069 .099 .032	022 026 039	.090 .071 .033
25	8.7 42.3 70.7	.025 .015 .002	027 028 029	.05A .0A2 .039	.021 .022 .022	010 016 015	-,019 -,020 -,021	-,020 -,021 -,021	0 0 ~.010	-,040 -,040 -,040	,010 0 -,010	-,020 -,021 -,020	.068 .051 .031	-,022 -,021 -,030	.064 .050 .032	-,022 -,035 -,046	.087 .070 .032
28.50	8.7 42.3 70.7	.015 .001 ~,009	045 046 046	0 005 009	-,029 -,019 -,026	020 024 009	020 024 009	001 0	.030 .031 .027	038 037 027	.030 .028 .014	045 048 048	.060 048 .020	031 040 042	.105 .080 .050	046 064 080	,129 ,100 ,039
31.50	8.7 42.3 70.7	.017 .010	067 059 059	.003 ,003 ,006	~.035 ~.033 ~.024	020 019 008	020 019 018	0,010	.032 .032 .050	041 040 037	.040 .032 .035	- 062 - 061 - 065	.069 .068 .052	060 060 075	.120 .105 .080	090 110 125	.148 .121 .076
3k.50	8.7 42.3 70.7	.046 .049 .059	072 072 081	.020 .019 .031	046 047 043	.005 0.010	011 006 .004	047 057 057	002 002 .012	060 062 079	.039 .050 .063	097 -,102 -,141	.088 .089 ,100	130 157 208	.110 .101 .118	175 220 290	.152 .137 .150
38.00	8.7 42.3 70.7	.028 .018 .036	102 112 130	006 015 0	075 075 080	027 039 020	034 031 031	081 100 100	028 019 011	099 117 130	.025 .026 .050	138 167 193	.073 .075 .108	-,190 -,220 -,259	.102 .104 .133	246 300 345	.151 .155 .180
41.50	8.7 \$2.3 70.7	.015 .012 .008	110 120 140	022 029 -,039	-,090 -,100 -,116	052 061 070	063 072 080	083 095 111	028 033 032	115 129 150	.009 .010 .009	150 169 197	.055 .050 .058	181 209 -,240	.090 .082 .070	-,210 -,261 -,300	.157 .148 .154
44.50	8.7 42.3 70.7	0 0 -,009	096 101 125	039 037 046	-,080 -,090 -,108	051 060 070	051 060 077	~,080 ~,089 ~,100	022 030 046	109 119 135	.010 .010	138 146 163	.040 .025	-,168 -,180 -,199	.070 .065 .074	187 223 241	.128 .121 .10;
47.50	8.7 \$2.3 70.7	.010 .030 -,001	070 071 080	019 .005 030	060 062 070	026 0 035	031 035 035	047 007 048	010 009 010	070 041 082	.010 .005 .002	108 070 117	.028 .021 .023	135 -,10 -,150	.048 .035 .030	140 115 166	.089 .079 .071
50.50	8.7 42.3 70.7	0 0 -,008	040 056 050	030 021 020	040 050 049	-,030 -,030 -,020	022 022	-,040 -,029 -,029	.012 005 005	060 058 046	.021 .002 .004	080 072 068	.040 .015 .016	100 100 098	.048 .021 .016	-,100 -,112 -,090	.080 .07.0 .045
53.50	8.7 \$2.3 70.7	00B	045 039 035	021 0	039 039 034	021 018	025 021 018	032 025	014 015 010	045 026	0	050 029	.021 .015 .016	056 041	.037 .030 .022	-,067 -,050	.07.2 -040 .040
56.50	8.7 42.3 70.7	-,009 -,018 -,008	039 030 019	030 020 010	035 030 024	018 018 008	030 030 019	-,028 -,020 -,019	~.027 ~.030 ~.025	031 030 020	010 010 015	039 039 021	001 002 014	035 041 040	.010 ,004 010	037 040	.030 .027 001
59.50	8.7 \$2.3 70.7	010 025	030 029 028	025 025 030	031 031 030	034 025 025	034 025 027	030 028 025	029 028 025	030 029 025	029 025 025	-,021 -,018 -,025	010 010	021 038 039	008 026	040 021	.027

(c) M,0.70.

Т						Ang	of atta	ck, degree	•						
Sta-	Percent			-	2		,		2		·		S		В
tion	fuse lage	Upper	Lover	Upper	Lower	Upper	Lover	Upper	Lower	Upper	Lover	Uppor	Lawer	Uppor	Lower
(in.)	radius	surface	surface	surface	surface	surface	surface	murface	surface	surface	surface	nurface	nurface	surface	
10	8.7	0.079	.002	0.059	0,002	0,056	0.002	0.030	0.047	0,002	0.079	-0,004	0,100	-0,021	0,120
	42.3	.070	.004	.060	.004	.052	,004	.032	,045	.011	.068	-,004	,090	-,070	,112
	70.7	.060	.006	.045	.006	.060	,006	.032	,044	.013	.050	-,006	,065	-,030	,065
15	8.7 42.3 70.7	.042 .036 .022	019 020 018	.020 .020	020 020 021	.022 .018 .010	020 018 018	010 012 .001	.017 .010 .001	011 021	.040 .025 .011	028 030 030	.070 .050 .025	038 045 051	.000 .000 .000
20	8.7 42.3 70.7	.020	029 030 027	.009 .009 001	029 030 027	015 015 0	015 019 019	020 019 020	0 008 008	030 032 035	.015 .010 002	045 049 057	,037 ,020 -,010	069 081	.05A .050 015
25	8.7	.020	030	.008	-,030	019	019	022	010	045	.010	-,050	,039	- 063	.040
	42.3	.010	030	~.002	-,030	020	020	031	009	045	0	-,059	,012	- 072	.020
	70.7	010	029	010	-,029	019	019	031	019	044	015	-,063	- 015	- 089	020
28.50	8.7 42.3 70.7	.020 .010 .002	038 035 034	.024 .020 .012	010 009 009	.002 .002	.002 .002	019 019 010	.010 .002	039 038 032	.022 .018	048 045 050	.019 .035 .010	050 060 069	.060 .060 .028
31.50	8.7 42.3 70.7	.030 .029	045 044 038	.030 .029 .036	012 012 0	.002 ,005 ,020	.006 .005 .022	-,020 -,019 ,022	,014 .022 021	048 045 035	.032 .028 .028	062 069 069	.061 .050 .042	082 091 095	.098 .080 .052
34.50	8.7	.070	040	.042	031	.001	.001	019	.021	045	.070	- 102	.078	- 169	.100
	42.3	.078	040	.052	030	.012	.003	018	.030	050	,070	- 117	.075	- 1 d	.093
	70.7	.090	059	.059	030	.018	.018	019	.840,	063	,091	- 115	.100	- 241	.107
38.00	8.7	.065	072	.025	060	026	-,021	052	.009	088	.060	-,160	.070	237	.098
	42.3	.050	080	.015	066	035	-,022	071	.010	101	.070	-,185	.080	278	.100
	70.7	.077	099	.039	072	023	-,023	070	.020	120	.080	-,210	.101	315	.130
¥1.50	8.7 \$2.3 70.7	.040 .032 .088	-,094 -,100 -,121	- 021 - 030 - 039	108 120 135	069 070 090	-,069 -,075 -,090	099 101 120	035 040 049	- 131 - 148 - 167	.009	- 175 - 196 - 225	,040 .038 .041	219 250 268	.096 .088 .091
\$\$.50	8.7	.021	079	-,038	100	070	065	0 0 9	036	- 122	001	160	.029	200	.070
	42.3	.020	030	-,042	101	080	070	100	040	- 133	006	173	.020	219	.063
	70.7	.012	104	-,050	127	092	092	111	060	- 150	021	195	.010	238	.048
47.50	8.7	0	085	010	069	050	055	069	031	083	.005	116	.025	140	.050
	42.3	.029	080	.019	070	020	058	030	030	045	0	075	.020	101	.042
	70.7	010	089	022	075	058	067	079	038	099	009	121	.010	160	.040
50.50	8.7	010	040	030	035	056	020	062	009	070	.018	090	.030	108	.048
	\$2.3	008	069	018	055	045	045	050	029	065	005	082	.008	104	.022
	70.7	015	055	018	040	050	040	048	030	055	.010	070	.002	100	.013
53.50	8.7 N2.3 70.7	011 011	041 048 030	020 020	049 040 030	 030 011	049 048 030	050 036	030 026 026	045	0 010 010	060 051	007 004 010	079 060	.020 .010 .001
56.50	8.7	009	010	020	040	020	040	049	026	050	020	050	010	052	0
	42.3	020	030	020	036	020	030	039	025	046	020	049	009	050	001
	70.7	009	030	019	039	026	030	032	033	035	019	032	019	050	019
59.50	8.7 42.3 70.7	0 015 022	014 025 030	020 027 038	025 027 040	032 035 039	025 025 038	040 042 042	022 022	040 038 035	040 040 035	021 021 030	018 009 032	-,040 -,040 -,040	011 001 031

TABLE IV. - CONTINUED

(d) M,0.75.

		1				Ang.	le of attac	k, c ree	<u> </u>						
Ste-	Percent function	-	4	_	5	- 0)						6		8
tion (in.)	radius	Upper	Lower	Upper	Lower	Upper surface	Lower	Upper	Lower surface	Upper surface	Lower surface	Upper	Lower	Upper surface	Love
10	8.7	0.100	0.025	0,065	0.023	0.046	0.0Aű	0.030	0,060	0.010	0.076	0.002	0.110	~0.009	0,140
10	42.3	.090	.027	.066	.027	.050	.011	.039	.060	.020	.071	.005	.100	007	.11
- 1	70.7	.076	.026	.060	.023	.051	,CA1	.040	.0%	.016	.060	,006	.072	014	.07
15	8.7	.06k	0	.038	0	.029	.01)	.002	.030	010	.049	019	.078	025	.10
~	42.3	.059	001	.030	009	.020	.010	.005	.021	010 017	.031	016 017	.060	030 040	.0
	70.7	.045	3	.022	0	.020	,015	.010	.022		$\overline{}$				
20	8.7	.025	029	.049	032	-,023	023	-,012	.010	-,027	.025	049 046	.032	~.020 ~.020	.0
	42.3	.019	025	.045	030	-,020 -,028	~.020 ~.028	012 012	.009	031	.008	025	.001	030	[.a
	70.7		030	.034						_	.011	.029	.029	018	.0
25 İ	8.7	,020	036	,042	036	027 027	027	018 020	,002	025	.020	.020	.020	028	اة: ا
	12.3	.005 -,010	022	.035	036	023	023	020	005	030	.005	-,005	.005	030	.00
	70.7	010				-			.010	030	.030	-,030	.060	-,050	.0
28.50	8.7	.030	-,022	.012	010	005	001 005	019	.010	030	.020	030	.048	058	.0
	42.3 70.7	.021	024	.003	020	002	002	-,011	.001	029	.003	037	,020	063	.0
		045	029	.025	020	002	.001	022	.020	-,0A1	.039	-,050	.070	079	.09
31.50	8.7	.040	028	.021	017	001	.002	020	,020	040	.025	050	.011	030	.0
	70.7	.037	-,016	,021	.001	.011	.011	010	,020	039	.030	045	.049	090	.0
34.50	8.7	,051	067	.027	041	-,002	01k .	021	.033	058	.060	110	.070	140	.1
٠.,٠	42.3	.059	068	.031	037	001	-,010	021	.040	059 082	.070	-,121 -,161	.072	- 164 - 223	1
	70.7	.060	079	.030	037	010	0	032	,050				.009	-,220	.1
18,00	8.7	.032	-,110	002	080	040	045	060 080	.010	109 127	.049 .060	-,175 -,200	.059	260	1 1
-	42.3	.022	120	010	084	052 046	0h3 053	078	.019	-,140	.065	228	.080	-,300	:ī
	70.7	.050	140		+					-,121	.026	110	.052	220	
41.50	8.7	.008	139	010	087	040	039 055	07B 088	009 017	-,131	.020	191	.047	241	
	12.3	001 011	150 170	015 024	100 116	071	071	107	020	-,161	.017	-,220	.048	-,280	1
_	70.7			-,020	082	049	055	079	-,012	117	.012	159	.036	190	.0
14.50	8.7 42.3	015	125 131	031	091	062	053	090	-,020	121	.012	- 170	.030	-,210	۰.0
	70.7	031	155	-,041	-,109	077	075	-, 104	034	141	-,005	186	.019	~,229	.0
:		.009	081	020	-,068	~.012	042	+,070	0-2	090	0	101	.040	130	,0
47.50	8.7	.035	-,080	.015	~.072	010	048	-,026	004	-,046	-,004	057	.036	089 145	.0
	70.7	002	,096	029	070	050	050	-,071	028	095	-,005	110			
50.50	8.7	001	038	014	027	040	OAO	051	0	061	.016 010	070 067	.0\0 .015	090 097	.0
,,.	42.3	0	055	~.015	050	031	037	048 040	+.021 020	061 053	~,010	-,060	.011	081	ة: ا
	70.7	004	042	017	040				+.012	073	004		.011		- 0
53.50	8.7		- 040		030	019	020 019	029	012	042	010	050	.001	~,064	.0
	42.3	001	035 030	010 014	029	019	015	020	02ó	- 034	010	- 010	.032	050	0
	70.7	002	+	+				030	017	038	010	040	-,004	050	0
56.50	8.7	-,014	035	025	029	-,020	025 026	029	019	034	-,001	039	,002	~.049	<u>-</u> .o
	42.3 70.7	014	025	007	025	014	014_	020	~,012	020	020	-,02C	011	041	0
59.50	8.7	005	020	-,018	-,020	018	-,020	025	020	025	017	030	001	-,045	º.,
77.70	12.3	006	020	015	020	+.015	~.020	020	020	030	019	025 029	-,010 -,020	048 040	0
	70.7	-,010	025	020	030	020	020	-,C30	030	030	+,025	<u> </u>	020	-,040	0

(e) M,0.80.

		1				Ang	le of attac	k, dejree	9						
Sta-	Percent	-	4	-			0		2				6		7
tion (in.)	fuselage radius	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper eurface	Lower surface	Upper surface	Lower	Upper surface	Lower surface	Upper surface	Lower
10	8.7 \$2.3 70.7	0,100 .090 .080	0.030 .030 .031	0.081 .079 .072	0.040 040 040	0,062 .068 .064	0.060 .060 .055	0,043 .049 .048	0.070 .070 .059	0,014 ,019 ,019	0.081 ,070 .060	0.014 .019 .009	0.133 .110 .084	0.009 .010 0	0,142 ,128 ,089
15	8.7 42.3 70.7	.065 .057 .047	.005 .008 .009	050 044 037	,009 ,008 ,011	.031 .033 .030	.029 .022 .021	.012 .016 .015	.040 .030 .032	-,008 -,012 -,010	.045 .030 .032	009 019 010	.090 .069 .050	-,011 -,019 -,020	.080 .050
20	8.7 \$2.3 70.7	.030 .022 .012	010 015 017	.020 .017 .012	010 010 017	010 010 017	-,010 -,010 -,010	011 012 018	.010 .005 0	030 029 031	.020 .013	030 031 040	.054 .039 .012	035 040 050	.067 .015 .012
25	8.7 \$2.3 70.7	.022 .015 .009	020 020	.010 002 005	026 027 026	017 004 019	017 020 019	018 027 020	0 -,001 -,006	030 035 038	.010 .006 006	030 035 038	.038 .030 .010	030 040 055	.050 .032 .010
28.50	8.7 42.3 70.7	.027 .020 .008	014 014 016	.010 .010 .001	012 012 016	-,002 0 -,001	002 0 001	018 016 015	009	010 030 030	.018 .011 .001	048 048 050	.020	040 048 050	.070 .052 .020
31.50	8.7 42.3 70.7	.032 .036 .029	021 020 009	.020 .021 .019	021 018 005	0 014	.014	-'077 -'050	.022 .015 .025	-,040 -,040 -,030	.024 .015 .025	060 060 059	.051 .040 ,029	-,060 -,060 -,059	.090 .070 .050
34.50	8.7 42.3 70.7	.070 .078	-,0\6 -,0\2 -,0\0	.010 .016 .008	061 058 056	.005 .010 .010	001 .009 .008	-,030 -,02 8 -,038	.026 .031 .050	060 064 082	.050 .055 .070	100 110 146	.068 .093 .112	-,120 -,130 -,189	.113 .116 .132
38.00	8.7 42.3 70.7	.050 .046 .070	090 090 104	020 028 009	110 111 125	028 031 030	- 032 - 040 - 039	-,077 -,088 -,089	.005	-,120 -,140 -,150	.030 .037 .045	205 230	.080 .089 .101	-,211 -,244 -,280	,109 ,117 ,136
11.50	8.7 12.3 70.7	.006 008	138 113 166	020 027 037	- 109 - 131 - 111	055 062 080	060 070 080	-,098 -,108 -,130	023 029 028	-,140 -,151 -,180	.010 .005 003	199 216 249	.019 .051	-,259 -,289 -,201	.060
NA.50	8.7 42.3 70.7	016 020 032	126 135 159	-,040 -,050 -,060	110 115 139	061 070 089	069 070 091	-,101 -,110 -,129	030 032 050	-,140 -,149 -,166	-,010 -,010 -,018	180 190 214	.037 .032 .020	-,219 -,211 -,118	.060 .040
47.50	8.7 \$2.3 70.7	-,010 .025 -,020	- 094 - 092 - 100	026 .010 036	-,080 -,080 -,082	-,045 -,008 -,052	045 050 052	-,080 -,029 -,080	030 029 037	-,095 -,010 -,105	005 050 016	- 130 - 080 - 134	.017 .012	089 190	.039
50.50	8.7 \$2.3 70.7	010 010	039 061 047	029 020 020	039 058 042	030 030 026	030 033 026	061 056 050	009 030 025	-,070 -,062 -,060	.012 015 015	-,088 -,080 -,071	,030 ,007 0	092 093	.045 .022 .012
53.50	8.7 42.3 70.7	0,002	- 040 - 040 - 030	-,012 -,008	040 034 025	024	024 024 025	041 032	019 018 014	050 031	-,010 -,010 -,015	050 039	.019 .010 .006	-,059 -,048	.019 .014 .006
56.50	8.7 \$2.3 70.7	022 01h 01h	042 039 036	-,022 -,020 -,019	047 042 042	029 010 025	042 036 033	030 030 .019	020 030 009	045 035 015	-,018 -,012 ,002	039 030 010	018 030 .001	-,045 -,040 -,005	_,009
59.50	8.7 42.3 70.7	001 .019 .004	.009 006 009	-,024 	009 007 010	.021 006 .004	006 009	019 005 010	.020 .006 005	019 020 010	.020 .006 005	010 020	.020 .014 .004	-,019 -,015 -,010	.027 .01k .00k

TABLE IV.- CONTINUED

(f) M,0.82.

								Angle of	attack,						
Sta-	Percent fuselage	-	٠ <u>.</u>		2	<u> </u>						L			
(In.)	radius	Opper surface	Lower surface	Upper eurface	Lower surface	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper aurface	Lower surface	Upper surface	Lower surface
10	8.7 42.3 70.7	0.091 .091 .080	0.032 .035 .032	30.00	0.032 .040 .038	0.050 .049 .050	0.045 .049 .045	0.0\2 .0\2 .0\5	0.070 .070 .061			0.015 .026 .018	0.122 .110 .085	0 00*	0.132 .115 .073
15	8.7 \$2.3 70.7	.061 .055 .039	.012 .003 .009	.042 .035 .030	.013 .008 .012	.030 .012 .015	.030 .012 .015	.010 .009 .010	.036 .024 .020			009 015 018	.682 .682 .683	024 030 038	.096 .070 .040
20	8.7 42.3 70.7	.037 .022 .008	020 017 017	.015 .010 001	020 017 017	009 008 009	018 .010 .008	016 011 020	.008 0 005_			015 030 041	050 032 010	035 040 050	.060 .042 .010
25	8.7 42.3 70.7	.032 .009 003	025 015 025	.005 0 010	025 027 025	011 0 015	018 015 015	019 020 025	001 0 010	===		025 033 041	.040 .029 .005	030 043 050	.052 .038 .009
28.50	8.7 42.3 70.7	.011 .008 005	030 030 032	.005 .008 010	010 015 015	010 0 005	015 010 010	021 021 021	002 009 011			029 030 039	.058 .040 .010	-,040 -,043 -,050	.060 .043 .080
11.50	8.7 \$2.3 70.7	.021 .014 .013	028 032 025	.015 .014 .020	019 018 001	019 016 .012	010 010 .012	022 022 012	.001 .003 .009			048 045 040	.070 .057 .046	059 062 060	.061 .065 .050
34.50	8.7 42.3 70.7	.061 .070 .068	042 040 040	.030 .038 .042	030 030 028	019 020 018	019 020 009	022 022 029	.021 .029 .048	===		099 108 144	.092 .098 .120	105 126 174	.116 .118 .139
37.50	8.7 42.3 70.7	.039 .029	091 102 120	.002 005 .011	030 032 102	060 058 061	060 070 065	0f0 0f9 068	001 .001 .003			161 200 238	.0% .094 .109	210 250 266	.110 .120 .138
41.50	P.7 42.3 70.7	.011 .009	131 140 162	033 032 041	109 123 141	060 069 081	060 069 085	099 110 130	035 040 050			205 226 261	.060 .051 .050	258 260 318	.078 .070 .070
L4.50	8.7 42.3 70.7	007 018 02P	120 130 16£	043 054 063	111 119 139	071 082 098	065 070 095	103 118 136	041 047 068	===		190 203 230	.039 .031 .018	-,230 -,262	.041 .041 .029
17.50	8.7 \$2.3 70.7	010 .026 021	0% 0% 100	032 0 048	088 090 089	060 072	060 060 065	===	===	===		128 080 138	.029 .020 .012	151 101 160	.035 .029 .015
-0.50	9.7 \$2.3 70.7	012 015 012	041 064 050	038 030 030	041 064 051	03f! 045 040	-,050 -,045 -,040		===	===	===	065 054 076	.032 .00£ 001	103 101 089	.038 .008 001
53.50	9.7 42.3 70.7	010 005	039 039 035	-,021 -,020	042 040	021	042 021 028		===	===		059 049	.002	070 075	.012 010 0
56.50	8.7 42.3 70.7	011 011	020 012 011	021 021 008	021 033 019	029 039 009	043 031 010				32.	050 046 000	030 028 028	050 052 028	020 016 020
59.50	8.7 42.3 70.7	010 010 010	022 020 020	010 018 018	030 025 025	018 010 013	020 020		===			027 025 028	018 018 022	018 017 028	001 010 022

(g) M,O.84

- 1	Percent						Anglo	of attack.	dugroos				
Ste-	fuselago	-	4	1 -	2	0	•	(2	1			,
(in.)	radius	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lower	Upper surface	Lower surface	Upper surface	Lover	U) per surface	Lower
10	8.7	0.092	0.032	0.075	0.040	0.061	0.060	0.040	0.070	0.020	0.090	0.009	0.112
i	12.3	-090	.032	.072	.040	060	.060	.050	.070	.029	.082	.009	.101
	70.7	.079	.032	.069	.040	.061	.055	.050	.065	.027	069	.009	.075
15	8.7	.058	.001	.041	.001	.035	.031	.015	.039	003	.057	018	.080
- 1	42.3	.050	005	.038	002	.031	.028	.015	.031	003	.040	020	.000
	70.7	.038	.001	.029	.001	.023	.023	.015	.031	001	.035	019	.040
20	8.7	.029	018	.011	020	0	0	010	.009	021	.025	035	
- 1	42.3	.021	015	.002	020	001	~.001	010	.009	022	.019	038	.(29
	70.7	.005	019	009	019	009	009	018	~.005_	026	.002	046	.00.5
25	8.7	.021	019	.002	025	008	010	013	.001	022	.015	039	.036
- 1	42,1	.009	019	010	025	018	015	019	.004	031	.015	039	.020
- 1	70.7	002	019	_+010	025	015	015	~.019	009	031	0	019	0
28.50	8.7	.023	011	.001	.018	005	005	020	.009	022	.025	035	.042
~	42.1	.020	010	.001	020	003	003	020	.009	022	.015	037	.030
- 1	70.7	.009	018	.001	022	001	001	016	003	026	.006	040	.006
31.50	8.7	.016	015	.010	026	.010	0	019	.015	032	.039	048	.064
~	42.3	.032	015	.009	024	900.	ŏ	011	.015	029	.039	047	.049
- 1	70.7	.025	008	.011	008	.011	.010	005	.020	018	.031	019	.036
34.50	8.7	.061	040	.031	03k	0	0						
,,,,,	42.3	.069	039	.037	028		.001	011	.028 .038	054 051	.058	090	.10A
- 1	70.7	.072	048	.031	026	.005	.022	021	.051	070	.039	128	.126
37.50	8.7	.040	092	001	088	039	039	067	0	120	.040	174	.095
۰۰۰۰	42.3	.031	110	018	-,000	057	039	082	″.∞8	138	.040	200	.098
- 1	70.7	.018	119	-010	102	045	040	079	.008	148	.059	219	.112
1.50	8.7	.008	141	024	109	050	055	10A	036	151	.011	216	.059
۱ ۳۰۰۰	42.3	.001	152	032	127	068	070	110	041	165	.002	234	.000
- 1	70.7	005	171	- 045	139	080	088	130	051	195	,001	269	.050
14.50	8.7	017	13h	016	118	072	063	111	015	-,155	005	200	.035
	42.3	021	141	053	118	⊸.085 l	068	120	050	165	010	219	.030
	70.7	035	- 168	069	143	100	090	139	070	188	029	241	.015
17.50	8.7	003	090	045	093	059	055	080	039	129	·026	135	.020
	42.3	.035	089	002	091	015	058	035	041	080	031	092	.011
- 1	70.7	014	099	055	099	069	062	090	~.049	130	039	150	.002
50.50	8.7	010	042	042	049	038	038	061	013	095	0004	095	.026
	42.3	001	058	~.035	070	041	041	055	039	085	031	090	001
- 1	70.7	008	048	032	058	032	048	048	032	078	032	078	004
53.50	8.7		039		010		030		023		005		.010
	42.3	~ 005	035	025	042	020	020	~.041	021	049	009	058	.002
- 1	70.7	005	+.028	019	019	015	015	026	018	045	006	054	001
36.50	6.7	018	031	018	026	021	021	040	011	040	010	041	.002
~	12.3	012	025	012	019	012	~.025	-,040	010	041	010	035	.005
i	70.7	.009	016	0	016	007	009	010	010	019	010	010	~.010
59.50	8.7	002	009	01B	020	002	009	~.021	009	030	009	.028	001
	42.3	0	010	010	017	0 1	010	018	007	027	009	~.025	008
- 1	70.7	005	012	012	025	005	018	025	016	025	015	025	015

TABLE IV. - CONTINUED

(h) M,0.86.

	Percent	L					attack, de	KC- 00 E					
Sta-	fuselage		7		4	1	•		2				6
(1a.)	redius	Upper surface	Lower surface	Upper murface	Lover surface								
10	8.7	0.100	0.038	0.075	0.032	0.051	0.051	0.048	0.075	0.029	0,098	0.020	0.122
	42.3	.099	.040	.075	,035	.050	.056	.050	.078	.035	.089	.022	.112
	70.7	.089	.035	.069	.035	.050	.056	.055	.069	.038	.025	.023	.089
15	8.7	.068	.011	.043	.040	.021	.019	.020	.cko	.009	.059	-,005	,091
	N2.3	.062	.009	.038	.035	.019	,015	.018	.031	.005	.045	009	.070
	70.7	.050	.010	.030	.030	.020	.015	.021	.033	.001	.039	009	.052
20	8.7	.029	013	.015	013	÷.009	013	015	.010	028	.022	029	.050
20	18.3	.029	015	.010	015	009	013	012	.005	025	.022	030	.034
	70.7	.009	020	٠٠٠٠	015	008	010	015	′~′۰	.030	~.002	038	.010
_													
25	8.7	.025	018	.010	020	013	015	020	005	023	.018	027	.041
	42.3	.010	020	002	020	015	020	019	-,001	018	.010	~.020	.029
	70.7		015	ļ <u>"</u>	019	010	015	015	005	030	005	040	.009
28.50	8.7	.035	-,009	.012	015	-,020	009	016	005	028	.029	035	.040
	42.3	.033	009	.010	020	020	~.009	013	010	030	,020	~.038	.029
	70.7	.018	010	•	018	019	011	013	010	028	.005	042	.005
31.50	6.7	.029	013	.005	025	025	013	020	015	034	.020	034	.031
,,,,,	12.3	.015	01	001	020	020	011	028	011	029	.012	040	.021
	70.7	.009	010	010	020	020	-,010	028	021	029	0.00	OA7	۔۔۔ ا
													<u> </u>
34.50	8.7	.032	000	.009	020 019	020	010	012	.009	020	.028	030	.058
	42.3 70.7	.029	012	1	020	015	009 010	012	001	020 020	.019	029 033	.042
								012	001			033	.021
38.∞	8.7	.040	~,010	.018	020	010	010	019	.015	022	.040	026	.073
	12.3	.040	~.009	.018	020	009	~.009	019	.017	019	.031	-,030	,061
	70.7	.031	0	.019	005	.007	.010	.001	.021	~,010	-035	020	.051
1.50	8.7	.016	141	029	-,130	075	075	100	030	161	.011	225	.066
	42.3	.018	151	033	141	081	085	118	039	180	.008	245	.060
	70.7	.005	-,172	041	161	092	099	130	048	205		268	.061
44.50	8.7	005	~.138	050	132	087	~.089	~.118	041	-,169	010	-,220	.030
,-	12.3	016	-,150	060	141	091	091	121	050	186	010	~.240	.039
	70.7	025	175	070	162	112	115	142	068	-,200	026	270	.028
7.50	8.7	-,009	101	034	090	→.069	069	om	038	~110	002	128	.032
•1.50	42.3	.030	100	.005	100	- 030	075	035	040	065	011	078	.029
	70.7	020	107	044	-,099	075	086	088	045	115	019	136	,019
													_
50.50	8.7	015	040 065	~.033	040 065	033	058	061	008	070	.015	080	.039
	12.3 70.7	013 013	-,05A	025 027	-,054	055 045	050 045	050 042	030	065 059	015 015	075 059	.011
								042				079	
53.50	8.7		031		011		029		017		008		.008
	42.3 70.7	.008 .008	025 010	019 010	040 038	~,019	025	030	~.018	040	008	045	.00
			_	-		010	012	025	013	-,034	-,005	-,039	002
56.50	8.7	005	025	020	025	038	025	035	030	040	001	040	.00
	42.3	003	020	018	020	028	015	021	019	029	0	036	0
	70.7	,009	-,010	003	-,019	-,005	010	÷.015	014	~,020	0	020	00
59.50	8.7	010	-,020	025	029	025	~.029	029	.012	025	.001	020	.010
	¥2.3	-,010	-,015	-,021	029	021	029	022	010	015	010	018	.001
	70.7	010	-,015	-,025	-,029	-,025	029	+.019	019	019	019	020	00

(i) M,0.88.

		т				Angle of	attack, de	K rens					
Sta-	Percent		A		-2		0		2		١.		5
tion (in.)	funclage redius	Upper surface	Lower surface	Upper surface	Lower	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower	Upper surface	Lower surface
10	8.7	0.100	0.045	0.090	0.050	0.060	0.060	0.059	0.089	0.028	0.095	0.022	0,133
	\$2.3	.098	.045	.088	.055	.063	.065	.060	.085	.034	.089	.025	,118
	70.7	.085	.050	.080	.058	.067	.067	.060	.072	.032	.072	.022	,095
15	8.7	.065	.015	.052	.020	.025	.030	.023	,046	,001	.059	0	.098
	\$2.3	.059	.010	.049	.018	.029	.018	.026	.041	.002	.042	00k	.075
	70.7	.045	.019	.045	.019	.029	.029	.026	.038	0	.038	003	.052
50	8.7	.027	-,010	.021	00h	.005	.005	.005	.021	015	.029	019	.057
	42.3	.025	-,005	.025	005	.008	.002	.002	.021	018	.021	021	.047
	70.7	.010	-,009	.010	009	.002	.002	.001	.010	021	.010	029	.021
3	8.7	.021	011	.018	011	015	0	005	.015	014	.019	019	.050
	42.3	.019	010	.011	010	001	.005	009	.010	025	014	025	.040
	70.7	.005	010	.005	010	0	010	009	.008	025	.008	030	.018
28.50	8.7	.021	011	.010	011	002	002	001	.021	015	.025	-,019	.061
	42.3	.018	005	.008	010	002	002	001	.020	019	.020	-,023	.050
	70.7	.002	010	.002	005	005	005	0	.010	019	.010	-,025	.028
31.50	8.7	.032	005	.018	-,010	005	.002	001	.030	021	.040	021	.079
	12.3	.038	.002	.020	-,009	.001	.001	.005	.028	018	.031	021	.071
	70.7	.034	.008	.030	.008	.018	.018	.012	.036	005	.039	011	.060
34.50	8.7	.058	030	.093	.031	.009	.004	.005	.057	-,047	.057	070	.108
	42.3	.067	028	.100	.032	.013	,009	.009	.061	-,051	.063	080	.111
	70.7	.079	025	.118	.034	.027	.021	.010	.080	-,060	.081	109	.135
38.00	8.7	.030	093	.059	031	039	039	051	.022	126	.031	176	.099
	\$2.3	.020	100	.053	033	037	035	067	.031	111	.041	201	.100
	70.7	.045	109	.070	051	036	045	065	.031	157	.050	225	.121
41.50	8.7	002	150	013	119	055	059	-,090	009	153	.020	229	.075
	42.3	009	152	020	130	062	069	-,101	018	169	.016	244	.070
	70.7	021	173	029	149	078	083	-,120	027	190	.011	272	.068
14.50	8.7	026	155	040	128	077	070	-,109	023	166	.005	-,260	.049
	42.3	038	161	046	136	081	072	-,118	022	181	002	-,279	.047
	70.7	051	195	060	155	099	095	-,139	048	201	020	-,310	.031
47.50	8.7	021	109	.021	038	060	060	079	025	-,114	010	149	.030
	42.3	.013	100	.057	041	019	065	030	030	-,069	018	099	.021
	70.7	032	111	.009	041	068	068	081	033	-,120	020	158	.014
50.50	6.7	021	042	.020	.018	045	-,021	054	.003	072	.005	079	.039
	\$2.3	016	067	,029	009	040	031	045	018	069	015	071	.011
	70.7	016	053	.030	.003	033	033	033	015	053	011	061	.005
53.50	8.7 42.3 70.7	 015 014	048 040 033	015 010	039 035 029	035	028 025 015	015	009 0	043 029	0 015 .009	 ,043 ,031	.014 .006 .009
56.50	8.7	022	042	022	035	031	035	010	020	038	015	038	.001
	42.3	022	030	022	030	025	030	018	008	037	008	037	.017
	70.7	009	024	012	024	009	020	0	005	005	010	0	0
59.50	8.7	005	012	005	-,012	-,010	015	018	0	030	0	029	.012
	\$2.3	010	015	012	-,015	-,009	018	015	009	030	009	030	.005
	70.7	012	019	012	-,019	-,015	019	012	012	028	012	028	010

TABLE IV. - CONTINUED

(j) M,0.90.

		T			Angle of a	ttack, degree	10				
Sta-	Percent fusclare	-	à.	-	e)	2			·
tion	radius	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
(in.)		surface	surface	surface	surface	surface	surface	surface	surface	surface	surface
10	8.7 42.3 70.7	0.099 .095 .085	0.039 .011 .010	0.077 670.	0.039 .041 .040	0.060 .065 .060	0.052 .053 .060	0.058 .061 .061	.061 061	0.042 .049 .049	0.105 ,094 .081
15	8.7	.061	.012	.038	.008	.030	.012	.025	.019	.010	.067
	42.3	.057	.005	.032	.001	.030	.030	.022	.010	.008	.055
	70.7	.042	.010	.030	.008	.030	.020	.025	.035	.011	.049
20	8.7	.019	020	.009	020	006	-,006	008	.020	~.015	.031
	42.3	.011	021	.007	019	006	-,006	008	.013	012	.021
	70.7	.002	030	010	020	010	-,010	011	.005	019	.011
ø	8.7 42.3 70.7	.010 005 012	-,021 -,020 -,020	.005 005 012	019 020 020	006 015 015	006 015 015	009 012 012	.003 .010	019 020 020	.021 .015 .009
28.50	8.7 12.3 70.7	.020 .001	008 008 012	,010 .001 .001	011 010 012	0 .001 .001	0 002 001	011 009 011	.010 .010	011 012 011	.030 .029 .015
31.50	8.7	.031	008	.019	008	.010	.010	009	.020	009	.045
	42.3	.032	001	.015	008	.010	001	003	.020	003	.040
	70.7	.031	.010	.028	.005	.028	.021	.011	.030	.002	.045
34.50	8.7 \$2.3 70.7	.061 .070 .080	033 030 030	.033 .042 .060	022 020 011	0 .013 .025	.008 .025	.001 .001	.0\n2 .050 .069	025 030 038	.082 .082
37.50	8.7	.032	104	001	082	045	048	063	.010	106	.052
	\$2.3	.022	111	012	088	055	040	061	.011	124	.061
	70.7	.047	120	.014	106	040	051	075	.012	131	.063
11.50	8.7	001	169	028	135	090	093	107	028	-,160	.020
	\$2.3	012	172	040	142	099	103	121	032	-,173	.010
	70.7	023	190	052	161	110	119	110	041	-,191	,005
44.50	8.7	~.038	195	061	156	115	110	135	042	195	001
	12.3	~.043	204	069	161	125	118	146	049	208	010
	70.7	~.059	236	081	185	140	140	169	069	237	05
47.50	8.7	-,026	122	045	102	071	069	061	025	125	008
	42.3	.015	120	001	110	030	075	031	030	071	011
	70.7	-,039	128	051	109	080	080	090	035	131	020
50.50	8.7	025	041	035	051	035	035	052	.004	069	.015
	42.3	015	061	030	069	048	048	043	-,021	060	011
	70.7	015	055	030	055	038	038	032	-,010	050	012
53.50	8.7 \$2.3 70.7	-,012 -,010	046 044 030	-,025 -,012	040 035 032	012 010	035 030 025	032 021	-,018 -,015 -,010	038 021	-,u08 -,005 -,004
56.50	8.7	025	045	025	031	031	035	031	022	033	012
	42.3	021	030	-,021	021	021	029	028	010	028	002
	70.7	010	031	010	012	020	025	011	011	011	003
59.50	8.7 \$2.3 70.7	006 011 025	015 025 025	029 029	029 029 032	008 011 012	015 020 022	023 020 015	009 002 021	023 020 015	.002

(k) M,0.92.

i	Percent					ttack, degre					
Sta- tion	fuselage		<u> </u>		2		0				
(in.)	radius	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface
10	8.7 42.3 70.7	0,116 .112 .098	0.050 .056 .050	0.100 .100 .088	0.057 .060 .060	0.070 .076	0.070 .071 .075	0.046 .052 .052	0.081 .082 .070	0.035 .040	0,100 .091 .076
15	8.7	.075	.020	.061	.022	.035	.035	.015	.042	.005	.060
	42.3	.069	.021	.054	.015	.039	.028	.020	.040	.001	.055
	70.7	.059	.021	.050	.021	.035	.035	.020	.035	.005	.040
20	8.7	.042	-,005	,021	005	.001	.001	009	.020	009	.039
	\$2.3	.038	-,002	,021	002	.018	0	001	.015	009	.030
	70.7	.026	-,011	,006	018	008	010	020	.013	013	.019
න	8.7	.031	-,001	,011	018	.011	001	008	.011	008	.023
	42.3	.025	0	.001	010	0	0	015	.011	015	.020
	70.7	.015	-,009	0	009	0	009	013	.005	013	.012
28.50	8.7 42.3 70.7	.031 .029 .021	001 .005	.021 .019 .015	001 .005 0	.009 .020 .009	0 0 ,009	009 009 010	.015 .019 .005	009 010 008	.035 .033 .019
31.50	8.7	.050	.010	.040	.011	.022	.019	005	.025	005	.050
	\$2.3	.047	.010	.040	.010	.020	.010	.005	.030	.005	.047
	70.7	.051	.022	.048	.025	.039	.022	.012	.033	.015	.051
34.50	8.7	.082	018	.060	001	.020	.028	010	.0\2	020	.081
	42.3	.092	011	.070	.007	.030	.036	010	.051	020	.085
	70.7	.110	015	.085	.011	.035	.050	005	.075	031	.108
37.50	8.7	.058	085	.026	068	035	018	075	.010	106	.059
	\$2.3	.049	100	.010	072	042	015	091	.015	124	.062
	70.7	.070	110	.032	088	030	023	091	.020	130	.070
41,50	8.7 \$2.3 70.7	.019 .010	160 165 183	020 030 040	129 140 151	080 091 110	071 080 091	130 140 160	030 038 046	160 172 190	.020 .019 .010
L4 ,50	8.7	020	202	060	170	128	104	180	050	-,215	005
	42.3	028	210	061	180	136	113	191	058	-,229	012
	70.7	040	.210	081	.205	135	131	210	081	-,249	030
¥7.50	8.7	012	188	030	120	086	070	139	038	208	008
	42.3	.024	171	.011	130	035	071	081	041	141	009
	70.7	028	206	050	130	095	079	153	050	231	020
50.50	8.7	015	035	021	035	046	021	051	0	061	.021
	42.3	010	060	018	055	043	043	050	027	060	009
	70.7	011	040	019	040	035	035	041	020	041	009
53.50	8.7 \$2.3 70.7	.006	031 030 011	-,009 009	031 030 020	025 ,019	031 028 010	029 026	015 015 010	045 026	.002
56.50	8.7	009	033	020	033	023	030	031	020	029	002
	42.3	008	020	018	030	030	020	025	010	020	.001
	70.7	.005	015	004	015	002	002	009	009	0	.007
59.50	8.7 42.3 70.7	.005 005 002	009 010 010	005 005	001 010 015	019 009 010	009 011 020	029 028 025	005 012 025	020 018 011	004 015

TABLE IV. - CONCLUDED.

(1) M,0.94.

- 1					Ang	le of attack,	degrees				
Sta-	Percent fuselage		4		-5		0		5	l	4
tion	radius	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
(in.)		surface	surface	surface	surface	surface	surface	surface	surface	surface	surface
10	8.7	0.129	0.062	0.100	0.062	0.081	0.075	0.061	0.099	0.041	0.103
	42.3	.125	.068	.101	.069	.081	.078	.070	.099	.045	.099
	70.7	.112	.062	.095	.072	.081	.095	.070	.087	.048	.087
15	8.7	.082	.030	.068	.030	.042	.040	.028	.060	.010	.061
	42.3	.079	.025	.060	.025	.040	.033	.030	.050	.010	.051
	70.7	.068	.030	.059	.030	.042	.039	.032	.047	.010	.043
20	8.7	.040	.009	.020	.002	009	.002	0	.023	019	.025
	42.3	.038	010	.018	008	0	.001	0	.018	018	.018
	70.7	.023	010	.010	010	0	0	002	.015	020	.015
25	8.7	.031	012	.010	012	005	014	005	.015	021	.015
	42.3	.020	010	.008	012	010	012	010	.009	027	.010
	70.7	.015	010	003	010	010	003	009	.009	027	.009
28.50	8.7	.040	.009	.018	.005	.013	.013	.009	.031	002	.031
	42.3	.032	.012	.005	.005	.012	.012	.009	.029	0	.031
	70.7	.022	.009	.009	0	.009	.009	.009	.019	008	.021
31.50	8.7	.059	.019	.035	.010	.019	.019	.020	.045	.011	.051
	42.3	.055	.020	.030	.011	.030	.030	.022	.044	.012	.044
	70.7	.051	.025	.041	.021	.030	.030	.035	.049	.016	.051
34.50	8.7	.090	008	.065	.018	.035	.035	.019	.065	006	.085
	42.3	.099	005	.080	.020	.045	.050	.022	.078	004	.093
	70.7	.110	009	.092	.030	.055	.059	.023	.097	013	.113
37.50	8.7	.060	082	.029	050	017	010	050	.034	090	.060
	42.3	.050	090	.021	053	029	010	050	.041	112	.070
	70.7	.072	103	.041	069	012	020	060	.041	.117	.072
41.50	8.7	.020	148	.003	091	069	075	110	020	159	.010
	42.3	.014	157	010	099	080	083	120	028	171	0
	70.7	.007	174	019	115	095	090	138	035	190	002
44.50	8.7	026	191	049	141	123	119	168	055	219	029
	42.3	030	201	058	149	138	125	178	065	228	038
	.70.7	049	231	072	170	155	149	198	085	250	031
47.50	8.7	028	230	070	230	138	128	195	052	253	01.0
	42.3	.019	232	024	210	085	140	130	060	185	045
	70.7	042	265	082	219	165	145	218	067	281	059
50.50	8.7	021	109	040	049	040	051	081	010	162	009
	42.3	020	129	033	074	049	048	072	032	150	040
	70.7	026	098	030	059	035	035	060	029	130	045
53.50	8.7 42.3 70.7	 0 .005	018 018 005	015 .005	018 018 010	 014 003	018 018 005	 019 015	015 010 005	 030 020	011 010 005
56.50	8.7	004	025	015	020	025	029	020	020	028	011
	42.3	002	013	020	028	018	,025	009	018	022	009
	70.7	.010	0	025	005	.010	015	001	008	001	008
59.50	8.7 42.3 70.7	.009	.008	009 010 015	010 010 015	020 021 010	020 021 010	015 015 015	005 .005 015	015 010 015	005 009 015



TABLE V.- PRESSURE COEFFICIENTS ON A WING HAVING A SWEEPBACK ANGLE OF 45° AND AN ASPECT RATIO OF 4 IN COMBINATION WITH A FUSELAGE.

(a) M,0.40.

	1												
Per-	Per-	<u> </u>	-4		-		ttack, dag:		•			_	6
oemi — oprin	chord	Upper surface	Lower	Upper ourface	Lower	Upper surface	Lover	Upper surface	Lower	Upper	Lover	Opper surface	Lower
15	0 20 30 40 50 60 70 80	0.132 .132 .061 .003 013 010 061 	-0.256 229 229 229 203 197 161	0.394 .365 .003 032 058 071 077 061 029	-0,131 -154 -154 -154 -154 -154 -167 -119	0.157 	-0.06A -0.093 -119 -129 -129 -129 -119	0,436 		0.195 088 804 804 196 168 175 177	0.063 ,071 ,010 -,013 -,078 -,078	-0. kh6 	0.826 .133 .096 .064
35	0 5 10 20 30 40 50 50 80 90	.035 .197 .110 .029 035 035 036 037 097	361 310 261 165 129 084	.253 .096 .032 026 064 070 087 086 090	221 207 109 119 096 061	.276 057 090 122 141 141 061 093	-125 -151 -151 -152 -093 -004	.160 244 189 189 192 186 170 077 093	013 061 067 077 067 069	804 465 316 868 252 227 204 093 093	.099 .029 013 	693 758 567 414 350 259 229 127 056	.005 .006
20	0 20 30 30 50 60 70 80 90	584 126 .035 003 042 035 009 009	390 310 245 035 126 061	.131 .035 022 054 067 067 069 003 .035		090 +.119 131 125 109 077 026 .010	-125 -127 -119 -119 .003 -077 029 .019	- 202 - 189 - 186 - 125 - 125 - 083 - 089 - 019	0 045 061 019 061 0 .029	332 278 249 168 150 093 045 006	.067 .038 .003 .003 .061 .061 .006 .003	\30 \696 \773 \637 \280 \166 \111 \077 0	.e17 .127 .070 i
75	0 5 10 20 30 40 50 60 70 80	277 .277 .142 .110 003 010 075 012 019 003	367 29Å 266 145 100 035	.321 .099 .042 003 055 054 054 052 .003 .005		077 087 119 119 119 119 093 061 006	119 129 131 093 077 022	.324 -369 196 183 173 154 141 091 064 022	.006 095 061 067 057 094	224 162 132 266 296 197 108 191 097 086 039	.115 .042 .003 035 089 .003	- 478 - 882 - 796 - 637 - 471 - 918 - 823 - 143 - 009 - 031 - 025	
95	0 5 10 20 30 40 50 60 70 80 90	365 .165 .075 089 065 071 042 035 0	310 212 152 060 094 006	.231 .067 .003 045 061 061 051 033 .019	-,044 -,044 -,060 -,060 -,060	.136 109 109 109 109 093 093 013 032 .010	123 119 107 073 026 .013	. 361 260 196 191 099 093 094 029 019 . 096	025 059 091 041 031	045 444 291 204 125 116 061 053 .003	.044 031 05g 041 031	153 484 430 328 328 191 196 143 102 088	.106 .006 076 074 071 .006

_						Angle of a	tack, Segr	***					
cont	Per- cent			,	10	ı:	•	1	١	1	5	1	8
epan	chord	Opper surface	Lower ourface	Upper surface	Lower surface	Upper eurface	Lower	Upper surfese	Lawer	Upper surface	Lower surface	Upper surface	Lower surface
15	0 5 10 20 30 No 50 60 70 80	-1,313 881 827 360 345 313 278 164 101	0.348 .237 .184 .127 .063 .038	-2.184 -646 -344 -456 -411 -358 -316 -196 -127	0.430 .310 .247 .184 .104 .065	-3.045 791 621 513 176 165 344 225 145	0, 195 .363 .296 .226 .135 .103	-3,698 668 722 591 498 490 371 243 147	0.996 .403 .332 .865 .173 .181	-4,650 1,061 -,846 -,695 -,595 -,524 -,160 -,132 -,166	0.684 .463 .392 .326 .167 .139	-5.013 -1.408 984 791 669 376 531 344 215	0.381 .505 .766 .360 .238 .190 .141
3>	0 30 30 40 50 50 50 90	-, 744 -1,036 -,943 -,744 -,532 -,380 -,285 -,152 -,095 -,022	.29A .190 .133 .047 .032 .038	-,889 -1,335 -1,415 -1,960 -,991 -,226 -,165 -,101 -,054 -,,006	.373 .269 .171 .062 .060 .063	-,968 -1.563 -1.672 -1.967 -1.563 -,666 -,186 -,090 -,058 	. k2k . 299 . 293 . 296 . 07k . 07k	967 -1.575 -1.712 -1.712 -1.712 -1.195 59h 195 070 	. 119 . 083 . 083 . 080	990 -1.633 -1.682 -1.786 -1.617 -1.484 -1.129 690 373 212	.139 .307 .139 .096 .071	958 -1.587 -1.527 -1.514 -1.547 -1.344 -1.177 555 569	.753 .124 .360 .165 .103 .071
25	0 5 10 20 30 60 70 60 70 80	823 -1,028 961 799 209 124 097 047	.301 .215 .133 .095 .378 .041	-1,019 -,956 -,956 -,959 -,629 -,629 -,649 -,222 -,038	.032 .273 .184 .114 .063 .063	-1.215 978 978 -1.023 990 887 773 572 812	. 392 . 296 . 206 	-1.163 946 939 946 	. 109 . 045 . 016 . 077	984 980 894 862 855 826 765 727 669	. 497 . 360 . 264 . 141 . 039 . 039 . 154	978 694 862 830 791 796 727 669	.151 .392 .296 .296 .109 .013 .055 183
75	0 7 10 20 30 40 50 60 70 80 90	728 759 759 703 633 536 411 313 190 089	.291 .196 .127 .025 .025	734 639 660 582 560 544 528 506 475 418 334	.339 .231 .152 .019 003 038	101 569 547 531 505 502 502 505 476 431	.35Å .257 .167 010 055 090	-642 -530 -527 -524 -498 -492 -492 -499 -466 -451	.371 .275 .176 	572 540 566 540 508 505 469 476 476 450 450	.415 .299 .206 .206 .006 095 090	601 563 550 534 508 508 466 466 466 444 412	.141 .325 .232 .010 -032 -,090
95	0 5 10 20 30 40 50 60 70 80	228 407 360 316 226 196 158 158 158 152 152	.160 .034 030 041 036 034	253 307 291 256 159 165 158 161 172	.191 .066 044 047 072 060	341 309 286 254 		396 304 300 261 243 240 211 227 227 194	.226 .091 028 060 094 068	-, h12 -, 315 -, 315 -, 315 -, 299 -, 297 -, 291 -, 244 -, 248 -, 244 -, 229	.26j .122 006 091 068	- 379 - 312 - 309 - 299 - 263 - 267 - 276 - 273	

TABLE V.- CONTINUED

(b) M,0.60.

		T				Angle of a	t tack, degre	**					
Per-	Per-		4		-0				2	T	٠ .		6
span	chord	Upper surface	Lover surface	Upper surface	Lower surface								
15	0	0.245		0.429		0.510		0.470		0.192		-0.190	
	10	.158	-0.237	.088	-0.168	002	-0.063	102	0.057	220		1-55	1
	50	.085	220	.000	170	055	098	111	002	+.232	0.170	332 316	0.250 .158
	30	,033	220	022	175	087	108	160	026	232	.054	307	.110
	40	.003	225	-,050	-,190	-,108	-, 128	170	050	230	.012	265	.060
1	50 60	028 042	210	070 080	-,180	122 123	135	178 167	088	225	030	278	.008
	70		-,190		-,172		137		073		00		-:000
	80	042	152	073	140	100	110	125	073	152	030	180	~.010
	90	-,013		039		053		-,068		090		105	
35	0	.126		.260		.318		.168		252	1 :::	- 135	
	10	.224	-,360	.105	875	055	140	270	00A	512 368	.145	715	.225
	20	.055	-,300	028	248	115	150	215	023	315	.022	440	.121
	30	.008	268	072	243	140	158	-,222	075	290	.013	350	.065
	NO 50	022 038		082 090		148 132		202 165		260 225		325 275	
	60	030	152	,	-, 160	1 2:22	-,120		~.o8o		020	1 2:2:2	020
	70		122		130		095		068		023		0
	80	.038	055	,019	070	.021	065		035	010	.003	020	.012
	0	391		.000		.411		.416		020		247	
55	3												
	10	.146	390	.050	300	080	151	~.221	D	417	.141	888	.215
	30	.010	311 240	020	-,242 -,201	110 123	142	209 200	039 051	330 289	.061	665	.128
	1 46		-,2-0	0,2	201								
	50	038		078		121		160		219		242	
	60 70	038 010	040 105	061	039 110	100	010 088	139 110	039	167	051	188	.070
	i iio	.014	000	009	040	039	030	042	010	029	.000	060	.025
	90	.045	.019	.030	.009	.031	.020	.020	.046	.020	.041	,002	.035
75	0	130		.2//3		.458		.353		250		362	
	10	.218	400	.138	272	077	141	295 213	.025	607 425	.154	-,800 -,762	.200
	ao .	.038	-,314	010	220	-, 102	137	193	023	332	.072	665	.120
	30	010	278	043	-,208	-, 125	156	186	058	270	.008	~.518	.010
	NO 50	030		052		115		153 148		230 198		390 270	
	60	045	155	0)2	130	096	115	097	~,068	140 .	038	-, 185	030
	70	038	100	023	078	058	068	100	038	-,100	022	118	030
	Bo 90	.005	-,040	.005	023	012	012	-,030	.005	040 .048	.005	053	002
95	-	+.240		.168		.430		. 178	1	.136		-,115	
,,	1 5	.158		,080		089		316	l	575		~.500	
	10	.053	34%	-,004	268	113	148	224	048	373	.075	448	.118
	20 30	050	219	070	187	123	-,131	180	087	245	030	337	0
	1 30	-,082	-, 168	075	150	-,100	145	→.12 0	120	145	-, 120	222	070
	50	080		080		-,100		-,118		135		187	
	60 70	053	077	037	053 035	055	063	+.063	037	053	037 020	138 115	~.030 ~.038
	80	010	025	.008	.023	.012	.010	,008	-,010	0	.010	or8	.008
	90	.032		.048		.009		.000		.055		050	

Per-					Angle of a	tuck, degree					
rent seul-	Per-	8		1	υ	1	2	1	•		16
apan	chord	Upper surface	Lawer surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower	Upper surface	Lower surface
15	0	-0.648		-1.060		-1.310		-1,718		-2.066	
	5	520	0.340	653	0.440	778	0.505	982	0,570	-1.210	0.645
	20	470	.235	570	.323	-,620	.380	~.765	. 438	870	.502
ļ	. 30	422	.173	502	.250	560	.300	665	.358	718	.118
1	\$0 50	-, 395 -, 368	.115	448	.190	490	.238	560 500	.284	647 590	.342
1	50 60	335	.052	362	.113	-, 388	.152	448	.185	538	.238
- 1	70		.028		.085	245	.118	297	.140	182	.180
	80 90	236 140	.020	236 148	.068	148	.090	195		244	
15	9	660		910 -1.260	===	932 -1.375	===	-,960 -1,446		852 -1.340	===
- 1	10	959 870	.301	-1.261	-375	-1.429	.310	-1.483	. 480	-1.352	.520
	20	722	.194	-1.340	.260	-1.640	.230	-1.635	. 369	-1.339	.411
	30 40	605 871	.129	-1.216 780	.187	-1.354	.165	-1.535 -1.340	.281	-1.309 -1.239	.329
	50	365	1 222	-,285		330	,100	-1.010		-1.005	
	60	210	.041	099	.075	-,110	.076	545	.130	811	.111
	70 80	126	.025 .032	-,060	.055	060	.070	245	.100	581	.100
	90	050		-,022		024		120		-, 189	
70	0	655		-,900	===	-1.028		-1,120		-1.026	T ===
	10	-1.038	.290	-,969	-375	912	.401	891	.439	860	.470
	20	+.955	.189	940	.269	906	299	860	.320	827	-377
	30 40	792	.128	920	.188	920	.210	855	.230	800	.272
	50	-, 382		810		895		840		771	
	60	255	.088	735	.118	825	.109	815	.175	73h 700	.118 001
	70 80	112	.018	590	.059	720 620	.045	~.759 ~.709	.025	680	090
	90	,001	.648	240	.049	-,460	039	655	042	627	172
75	0 5	675 833	:::	713 665		682		675	:::	634 560	===
	10	812	.262	638	.338	552	.350	530	.405	552	. 18
	20 30	795 753	,159 ,078	600 579	.218	523	.241	- 510	.292	530 500	.308
	140	670		543		483		170		487	
-	50	568		517		473	+.017	460 460	-,017	473 470	017
	60 70	150 352	034	488	-,018	470	070	455	030	450	063
	Bo	212	018	433	082	445	-,110	433	→.115	432	115
	90	-,128		363		410		-, \$10		390	
95	9	225 460	===	225		290 300		390 315	===	305	===
	10	425	.170	298	.190	298 260	.209	288 280	.093	300 278	.270
	20 30	370	.039	275	.053	200	.060				
	No.	260	043	237	-,058	220	052	-,260	058	280	053
	50 60	243	- 000	200 183	055	243 214	032	263 257	070	250 255	065
	70	198 190	032	118	090	238	100	260	100	252	115
	l êo	178	028	200	068	220	082	252	093	270	108
	90	-,160		180		202	<u> </u>	233		268	

TABLE V.- CONTINUED

(c) M,0.70.

		_			Angle of e	ttack, degree					
Per-	Per-						,	-			
epan	cent chard	Upper surface	Lower surface	Upper aurface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface
15	0	0.310		0,160		0.540		0.522		0.265	
- 1	30	.148	-0.240	7,060	-0.140	018	-0.040	095	0.045	885	0.138
- 1	20	.075	232	010	163	-,072	OTB	135	020	247	.052
- 1	30	.025 007	230 232	052 080	165 218	100 120	120 110	153 168	-,040 -,072	265 262	025
- 1	50	040		102		142		180		260	
	60 70	055	226 210	120	205 189	145	148 129	180	100 101	245	066 077
	80	058	171	100	157	100	115	080	080	→.138	070
	90	030		065		070		077		118	
35	0	.160		.303		072		.225 235		108 500	
1	10	.123	378	.040	258	082	125	190	008	378	.112
	20 30	.010 010	325	+.037	223 240	123	160	205 212	050 062	330 315	.035 010
	40	040		092		155		203		210	0.0
	50 60	055 005	175	097 032	112	147 070	118	188 100	078	252	042
	70	005	112	032	123	-,100	-,100		068	113	040
	80		078	.010	060	.008	→.040		012	010	013
	90	.026						.030			
55	0	247		.170		.468		.152	===	.128	
	10	.128	-,408	.040	294	088	-,128	223	013	433	.102
	20 30	.0j8 010	335 263	027 070	202	115 115	135 084	212 205	061 073	355 317	.038 002
	Ã0										
	50 60	060 047	055	090 029	-,073	134 112	.012	168 150	.039	215 155	.038
	70	028	-,100	045	090	055	0/8	-,100	026	123	043
	δν 9υ	05	050	005	-,040	018	018 .029	020	005	000	005
75		016		.329		.480		.395		-,000	
.,	5	.204		.104		090	- 5.7	297		568	
	10	.120	634 348	035	295	100 138	153 150	223 212	010 090	434 348	.130
	30	018	245	070	239	158	170	202	oê9	29)	.002
	50	060		099		140 148		-,175 -,167	1 :::	215 212	
	60	-, 13	164	050	150	113	130	130	082	140	003
	70 80	017	103 038	050	103 040	030	068 017	097 040	050	075 040	020 010
	🕉	.02)		.035		.025		.025		.025	
.5	0	155		.230		.467		.403		.030	
	10	.158	1 :::	009	283	127	152	324	062	- 565 - 400	.00
	20	060		098	208	143	143	187	110	259	055
	30	086		-,102	172	102	138	133	126	158	128
	50	098		102		103		127		140	
	60 70	034		075	0A8 022	048	038	-,068 -,028	062	080 050	062
	80	.023	1 :::	.07,2	.057	.052	.008	.010	.009	015	.014
	90			.033		.058		.053		.028	

_ 1					Angle of at	tack, degree					
Pr-r-	Per-	6		8		1	0	12		1	4
Jenn Jenn	chord	Upper	Lower eurface	Upper aurface	Lower surface	Upper eurface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface
15	3 5	-0.048		-0.300	==;	-0.598		-0,800	===	-1.070	
1	16 20 30	365 367 362	0.258 .159 .114	498 450 429	0.334 .219 .1/5	728 610 550	0.435 .312 .243	870 705 620	0.500 .3/2	-1.095 765	0.575 .139 .360
	10 50	j30 j20	.0/15	464 380	.114	501 ¥/2	.182	540 490	.230	653 517	.290
	70 73 83 90	217 215 159	018 615	353 251 152	.012	111 283 168	.099 .068 .048	439 313 199	.132 .098 .069	-, 483 -, 345 -, 223	.182 .138 .100
15	0 5	3 ^k > 778	===	-,522 -,938	===	768 -1.230	===	660 -1.333	:::	-,860 -1.340	===
	10	/50 500	.213 .115 .960	855 705 619	.282 .178 .113	-1.223 -1.230 -1.180	.355 .242 .170	-1.379 -1.480 -1.418	.413 .298 .218	-1.345 -1.400 -1.332	350 268
	10 10 50	432 375 308	===	493 390	1 222	913 420		-1.178 657	===	-1.222 -1.040	===
	60 70 80	182 150	002 012 .038	-,222	.027	108 07>	.038 .038	265 170	.088 .063	730 180	.105
	90	030		-,552		030		067 864	-22	318 -1.025	
59	0 5 10	1/.8	.212	-1,054	.292	985	.349	872	.382	-,820	.420
	20 30	704 481	.0/9	976 808	.175	955 940	.239	852	.194	792 773	.308
	50 60	260 200	.065	367 238	.268	815 740	.100	828 789	.105	762 747	.095
	75 60 90	132 065	010 .020 .039	13k 065	.008 .035 .053	608 495 345	.030 .020 .005	718 658 580	.010 022 112	718 680 632	016 087 188
75	9	412 928	===	605 895		724 762	.228	763 670 665	.251	807 665 652	.285
	10 20 30	871 782 656	.020	870 849 814	.170	729 700 604	.112	632 608	.139	635 610	.168 .072
	50 50	537 425		756 682 590	139	637 617 599	170	598 572 562	150	568 568	125
	60 70 80	-, 322 -, 238 -, 158	125 120 100	387	122 114	553	168 202	533	185 227	533 525	-, 173 -, 227
95	90	103	-===	275		198		495		495	
l "	5 10	534	,102	450 422 373	.150	- 340 - 320 - 297	.188	320 302 282	.217	314 311 297	.244
	20 30 40	389 	087	276	086	240	080	246	080	253	080
	50 60	215 158	c48	235 195 189	948 972	222 207 227	082 115	-,248 232 253	100 151	278 262 279	092
	70 80 90	136 109 080	014	178 168	045	226	097	250 239	-,124	277 269	124

TABLE V.- CONTINUED

(d) M,0.75.

Per-					Angle of a	tack, degree					
cent	Per- cent			-	2)		,	,	
span	chord	Upper surface	Lower surface	Opper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower	Upper surface	Lower surface
15	0	0.340		0.500		0.540		0.524		0.360	
	10	.142	-0.242	.069	-0.160	.006	-0.085	100	0.047	218	0.124
	20	.078	233	.006	169	-,050	-,100	151	.002	236	.059
	30	.032	238	030	172	130	114	150	032	242	.017
	\$0 50 ·	010	245	063 089	195	130 125	140	173 185	066	250 262	018
	60	058	238	105	200	127	158	179	097	248	060
	70	ــــــــــــــــــــــــــــــــــــــ	- 225		190		157		-,108		062
	80	059	181	090	160	113	132	142	083	190	068
	90	032		050		062		-,081		120	
35] 0	.174		.310 .068		-,354 -,010	:::	.210 260	===	.010	
	10	.200	-,360	.008	258	050	150	200	010	330	.118
	20	.თ.	339	040	250	102	-,168	+.220	060	-,300	.016
	30	016	-, 302	~,081	239	134	180	235	091	295	006
	40	046 060		106		141	===	226	===	269	
	50 60	000	163	099 041	-,155	136 060	-,123	209 115	-,085	121	029
	70	-,010	150		-,130		099		079	100	030
	80		072		071	l	050		032		.001
	90	,026		.015		.019		~.001		.013	
55	0	-,173		-199	1 :::	.420		.457	:::	.213	:::
	30	.127	416	.025	299	067	181	225	005	390	.101
	20	.033	338	042	258	116	172	~.213	→.041	330	.032
	30	004	267	06 7	215	140	152	207	050	297	.019
	160 50	-,049	:::	102		130	1 ===	170	:::	-,226	1 :::
	66		037	090	027	108	-,089	135	.040	179	.047
	70	021	110	050	110	056	⊸.080	113	030	110	021
	80	.001	036 .030	020 .030	0k0	020	020	040 .034	.011	038 .039	.052
	90	.032	 			.035	<u> </u>		.039		
75	0	.046		.360 .094		031		379 307		540	===
	10	,118	~,445	.036	285	057	158	232	0	h09	. 120
	20	.032	319	-,0kg	250	099	155	222 211	0A3 082	-,328 -,289	015
	1 30	021 039	-,294	000	234	123	172	18g	002	235	015
	50	073		100		-,120		-,170		200	
	60	052	160	050	147	090	119	120	080	-,140	055
	70 80	041	092	033 019	092 038	067	-,052 -,019	092 037	040 009	080	032
	80	-,009	1	.033	05	.040	019	.033		.040	
95	-	073		,260		.155		.000		.109	 ~~~
.,	1 5	.154		.040		082		330		551	i
	10	.042	397	038	263	115	-,188	~.247		378	050
	20 30	068	230	106	192	129	159	185	===	240	050
	1 40	082	-,180	100	153	120	100	120		153	095
	50	-,090		105		100		-,109		132	
	60	~.050	063 030	052	0\2 035	045 023	048	042		068 042	032
	70 80	035	090	039	.035	032	.022	022		.010	.032
	1 80	.035		.060		.060				.055	

Per-				Angle o	f attack, degree				
cent	Per-		;	8		1	0	1	2
span	chord	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	lover surface
15	0	0.048		-0.170		-0,400		-0.608	
	5		7.7.7	* 7.5	7.7.5	'- 7.5	27.2		0.510
	10	361	0.240	489 450	0.325	670 581	0.430	817 711	.390
	20 30	350 349	.160	440	.239	540	1.320	635	.310
	الما	349	.065	401	.120	100	198	515	. 249
	l 🕉 l	335		-,390		NGO		-, 490	
	166 1	311	.009	-,362	.049	410	.112	-,150	. 150
	70		02 0		.020		.075		.110
	80	229	019	259	.018	270	.062	330	.085
	90	146		-,169		-, 160		200	
35	0	270		430		636		749	
		759		898 811	.278	-1.179 -1.160	.362	-1.309 -1.316	.112
	10	641 500	.211	671	.174	-1.150 -1.170	.302	-1.384	289
	20	430	.059	584	,109	-1.136	.179	-1,328	.219
	30 No	- 386	.009	- 198		897		-1.160	
	50	318		~.100		647		820	
	60	185	.001	231	.023	123	.067	458	.082
	70	130	009	166	.018	080	.040	270	.050
	80		-012	1	.040 .	7.7.7	.045		.045
	90	-,021		057		026		110	
22	0	-,061		3k0		620	:::	790	===
		818		-1.030	.864	· -,988	.340	861	.392
	10	618 679	.222	-1.050	1 .181	951	.312	835 *	200
	1 20	489	.085	830	.121	-,926	.160	816	.201
	1 %		1						
	1 50	-,240		352		781		761	
	60	180	.099	-,170	.105	69 3	.089	729	.110
	70	110	.00Å	075	.020	571	.023	676 631	.021 031
	80	049	.030	030	.032	-, 475 -, 354	.020	569	110
	. 90	.020	.050				+		
75		221 760	1 :::	433 769		562 647	1 ::::	640 570	
	1 10	715	.230	742	,272	618	, 330	557	-355
	20	642	.135	720	166	-,581	.213	527	.233
	30	550	1 .060	690	.091	550	.131	~.502	.162
	1 60	426		640		518	1	481	
	50	314		586	1	197	7.7.7	470	
	60	205	006	503	005	173	026 072	460 438	~.054 ~.098
	70 80	120	0.023	-,425	.002	138 128	090	432	133
	&	041 .026		190		369		391	7.23
		-,040	 	+.112		159		240	
95	š	518		-,433		317		292	
	10	-, A72	.121	409	.172	300	.190	282	.226
	20	389	018	-,354	.020	272	.032	259	,062
	30								
	40	250	078	258	083	217	077	250 250	085
	50 60	210 153	050	220 180	-,042	199 180	080	245	2.097
	70	138	050	180	070	200	115	261	139
	1 66	103	003	172	042	202	068	-,254	11
		079		-, 174		206		248	

TABLE V.- CONTINUED

(e) M,0.80.

Per-	_	_						Angle	of attack	degrees							
cent	Per-	_	١	_	2		,	-					6		i	1	0
Span	chart	Upper	Lower	Opper surface	Lower	Opper surface	Lower surface	Opper surface	Lower surface	Opper eurface	Lower surface	Oppor surface	Lover . surface	Upper eurface	Lower surface	Upper surface	Lower aurface
15	۰	0.380		0.520		0.570		0.515		0.400		0.140		0.098		0.292	
	10	.130	-0.220	.055	-0.135	040	-0.035	150	0.027	210	0.160	~.350	0.259	520	0-353	682	0.435
	20	.oto	210	.010	148	081 089	070	162 185	038	21B 232	.09A	341 347	.170	478 478	.250	622 573	.320
	30	031	-,236 -,240	~.031 ~.061	180 192	117	-,110 -,130	~205	070	248	.000	345	:012	450	.138	587	.188
	50 60	OA1	 -	~.091		139 150	-152	224 200	102	260 253	017	349 334	.008	419	060	551 518	.108
	70	~-055	239 230	109	202		-, 161		-, 128		- 067		025		.020		.055
	80	051 005	,18o	095 060	~168	125 071	131	169	107	-,188 -,106	048	239	018	283	.020	308 183	.048
35	-	-215		.324		.358		.215		.025		195		180		509	
32	,	-200		.076		055		262		463 350		-,760 -,645	.207	98A 930		-1.228	
i	10	.120 .035	362 332	053	272	~072	-160	223	~053	322	.032	515	.102	815	.178	-1.198 -1.168	.370 .254
	30	~.00B	300	098	265	158	~,172	250 237	~,086	318 296	010	\$50 \$00	.052	700 559	, 120	-1.077 892	.182
i .		040 057		-112	===	-,160	===	237		-,262		334	===	-, 127		610	
	80	008	- 178	-,060	178	-,080	-,125	~135	067 105	140	~.032 ~.032	198 150	004 015	168	.040	23h 093	.050
	.70	===	140 070		-115	===	~105	===	~035		_000		006		.030		.049
	90	.023		0		.003		.002		.005		023		045		015	
55	٠.	092		.210	:::	.111		.435	===	.205	===	021		332		~.558	
	10	090	-,440	.020	-, 322	097	-,186	270	~,007	-,453	.090	868	.202	-1.108	.278	986	.345
	20 30	.008 038	-373 -300	053 083	282	130 150	- 180 - 165	258	053 068	378 338	-017	~.717 ~.537	-117 -102	1.068 985	.180 .118	950 920	.239
	¥0				l					263		258	-::	538		845	-::
	26	088	-,122	~.11B ~.102	042	147 120	022	208	.m8	203	.024	195	.095	278	.106	762	.088
	l iii	024	145	068	113	055 016	103 068	~.073	072 068	137 073	057 020	~.120 ~.060	002	105 036	.015	639 522	.018
	, 20°	.010	030 -003	-,032 -,018	00A	016	-, cos	.004	.038	007	.012	.010	.044	.012	.023	.392	022
75	•	.113		-370		-,061		.358 358		.050 593		190 830		~.422 ~750		~.565 ~.642	
	1 15	.178		.100	295	080	~150	260	.009	150	.130	-,778	.210	728	.280	623	.323
1	20	.025	350	032	-252	- 120	-148 173	243 235	040	352 308	-010	692 586	.113	700 673	.178	590 557	.203
	1 20	022	296	073		050	7.272	-,203		247		472		650		538	
	20	070	- 153	100	-,136	138		192 135	090	214	000	- 368 - 264	~032	618 565	009	513 694	050
	70	036	~.092	-,058	~-,o86	063	- 060	-,088	- 035	051	025	169	013	500	032	457	086
	80 90	00k	025	007	~017	007	~029	~015 .035	010	-018 140.		~071	•	-, 122 -, 325	~006	449 411	125
95	 ~ -	1005		.266		.460		-374		.100		-010		-,113		190	
"		.152		.044		~113		397	-,012	612 420		- 534 - 476		404 380		330	.209
	10	.040 065	368 206	~-035	-270 -179	~141 ~153	-,159 -,141	289 214	079	248	000	383	-010	38	.032	315 292	.048
	36	~,070	-147	-,098	-1h5	-,117	-112	-,145	-,142	-,160	-095	-,240	075	-230	080	- 240	070
l '	50	070		~.098	l	-109		128		130		202		-,224		229	
l '	60	030	042	042	030 012	050	~001	060 037	021 001	065 040	025 023	142 130	025	152 190	0A2 070	217 238	060 120
1	70 80	019	-,001 .048	029	.050	.014	.058	.022	.059	.au	.035	099	.010	196	041	239	091
L	90	-077		-077		.094		.077		057		060		178		215	

(f) M,0.82.

Por-	_							Angle o	attack,	dogress							
cont	Per-	-			2		0		2		4	6			8	1	10
epen.	chord	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper eurface	Lower surface	Upper extrînce	Lower surface	Upper surface	Lower surface	Upper ourface	Lower surface	Upper surface	Louer surface
15	0	0.410		0.525		0.570		0.555		0.390		0.130		-0.049		-0.16C	
	10	-135	-0,232	.070	-0.165	013	-0.062	100	0.047	230	0.151	500	0.240	515	0.348	630	0.391
- 1	20	.075	~~210	.002	168	080	085	141	.002	240	.100	380	.155	470	.251	560	.290
- 1	30	005	-238	060	195	-,103 -,131	123	152 180	032	215	.050	381 381	.056	450	-190	51è	.232
1	50	050		~.090	l	160		192		279		391		440		530	l
	60 70	060	~257	-,110	221 242	170	175 198	200	102	270	040 080	379	010 052	440	057	529	.080
	80	070	205	105	185	147	162	154	097	210	~.055	261	035	÷.290	.019	319	.032
	90	035		~.063		095		- 095		129	1	185		172		~.188	
35	0	.211		-329 -098		079	= = =	232		480	= = =	227		~323 ~970		12 -1.150	:::
	10	.099	~-370	.030	263	096	148	192	٥	367	.131	668	.220	963	.302	-1.126	.334
	20 30	031	~.350 ~.318	045 069	279 269	185	~.175 ~.190	214	052	338 331	.059	530 462	.110	809 693	.179	-1.074	.210 .158
	40	-,058		-,110		190	ļ	228		310		- 420		556		778	
	56	080	.207	118 050	-,186	180 093	-,150	210	080	270 148	029	~.350	009	418	.050	530 257	.063
	70		- 161 - 082	====	-143 -086	= = =	130		062	===	030	1:::	0.019	1:::	.026		.019
	90	.022		.009		.001	1 = ===	.016		.011		018		029		018	
55	90	-007		.208	===	.65%	1:::	.448	===	.230	1:::	030	222	270		425	===
	30 30	.110	- 402	-043 -077	~361 ~269	-110	-172	248 248	035	460 369	.120	-:872	.216 .130	-1.100	1.268	_1 073	.315 .212 .118
	žč	026	322	-011	238	-176	-170	245	063	336	.050	592	.072	-1:992	138	1.027	:148
	3296	06	I	10	===	160	===	-,202	===	212	===	.260	===	502 253	===	906	===
	78	023	-:029 -:115	060	- 029 - 115	-132	-010 080	- 168 - 113	029 095 040	181 108	- 227	132	- 902	1 090	.102	906 738 482	.115
	90	.045	-046	025	050 .018	040 -037	- 025	66	018	043	.008	~056	.030	022	.061	212 040	.025
75	-	-137		.348	===	-488 093	===	-399	===	.056	===	175		383	1555	660	
	18	:33	-,445	.035	-330	103	150	二월	012	二:6%	.137	二務	,233	748	.279	653	.312
	20 30	00A	=372	~@?	260 270	163	1:17	217 238 201	057	368 310	0.062	702	:133	690	:055	623	.212
	50	062		09I 119		150 158		26A		255	===	535 423	===	- 619		- 595 - 567 - 545	
	60	072	172	098	~158	120	-133	-172	088	142	050	- 100	020	- 560	010	- 21	012
	78°	092	- 102	065	099 032	~.065	100	~ 030	065	074 015	033	180	-010	- 190 - 119	010	167	045 015
	90	.030		.025		.030		030 .026		.042		.005		319		413	
95	9	.018 .119	===	.212 .058 038 115	===	140	===	- 113	===	628	:::	698	===	376		148	:::
	16 20	096	- 217	- 038	326	160 164	186 225	267	02	260	.070 053	453 383	027		.172	332	.197 .028
	30													330		297	.026
	¥0 50	110 104	180	090 100	174	142 116	150	180	~.122	160 132	101	250	095	255 222	088	238 222	~. 097
	60	055	O42	050	042	050	060	~.069	050	068	032	157	O42	180	063	201	~.009
	70 80	040	042 .032	030	045 .026	030	030	020	020	047 .000	020	137 -	055 012	190 200	~.090 ~.065	225	125
	90	:050		.050		.069		:075		.052		100		201		230	222

TABLE V.- CONTINUED

(g) M,0.84.

								•	_								
								Angle of	steck, 4								
Per-	Per-	-		1	e .		0		2		<u> </u>		5		B		
opan opan	chord	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower	Upper surface	lover surface	Opper surface	Lower surface	Upper surface	LOWET	Upper surface	Lower
15	0	0.415		0.540		0.592	1:::	0.565	= = =	0.440	1===	0.840		0.048		-0.055	
1	1.2	.129	-0.255	.070	-0.159	010	-0.025	100	0.050	195	0.175	312	0.252	448	0.368	540	0.410
	20	.075	226	.019	150	045	050	115 115	015	200 213	.122	298 315	.178	k09 k07	.970	152	.313
	30	.025	240 255	010	165 190	079 099	065	160	050	225	.040	315	.000	399	.163	458	.202
	50	040		~.082		-,120		180		240		323	.014	392 18	.080	450	.iii
	60 70	060	270 265	098	212	139	125 159	190	096	242	010 054	330	030		.040		.058
	80	061	210	-,090	178	-,110	126	155	090	180	025	240	008	860	.048	307	.068
	90	040		052		060	1	085		095		135		130		132	
35	0	.225		.330		. 370] ::::	230	1:::	.039 472		108 708		+.878 950	===	363	:::
	100	.203	39B	.095	290	070 084	122	185	007	375	,105	- 593	.210	887	.264	-1.073	.323
i	20	.037	372	050	265	130	152	215	062	357	.012	190	.099	78A 707	.162	-1.029 ·	.194
	30	020	335	090	276	167 173	167	211	090	357	020	457		612		822	
	1 50	068	1 = = =	115		168		215	1	301		346		-,452	013	610 270	
	60	012	204	048	182	080	134	114	085 073	170	053	178	.002 007	233	.003	910	.023
	70	===	160 073		073	1	047		028		025		.012		.032		.096
	90	.028	122	.012		.012		.018		008		012		026		018	
55	0	067		· .193		.455		.433	===	.212	===	.006	1:::	206		-, 368	::::
1	10	,100	-,182	.00Ā	380	-,136	191	265	073	505	.0∈8	877	.160	-1,120	.274	-1.135	.895
l	20	.018	410	063	÷.321	176	-,190	264	108	-,132	004	719 555	.070	-1.032 919	.172	-1.093 -1.068	.173
l	30	-,031	329	100	272	-,198	175	283	-,113	393		555					
l	50	082		132		183		247		300		~, 316		¥68 \$58	.098	88e 678	.086
1	60	-,080	054	118 082	053	160	024	205	014 100	245	.008	257 167	.034	110	.012	-, 460	005
l	70 80	050	1V3 057	050	075	050	072	085	055	098	-,048	098	023	-,047	.028	308	.003
	90	.013	.005	.005	002	.008	.015	020	.005	028	~.008	028	.010	÷,005	.043	150	
15	0	130	T	.365		074		.420		.050 632		128 80h		333 762		692	
l	10.	.211	162	118	322	000	-,122	219	001	172	.131	739	.215	722	.275	662	.998 .188
ļ	20	.039	370	022	-,268	-,120	128	218	040 065	370	010	660 573	.10k	699 669	.178	597	108
l	30	026	312	070	265	132	-,147	184		- 260		457		~.612		579	
1	50	078		-,103		-,128		178	.070	220 144	-,058	-, 360 -, 255	015	587 582	-,009	560 528	035
ŀ	70	032	151	070	140	090	106 085	060	043	067	035	153	015	- 152	030	-,464	070
	1 66	0.052	015	0	015	.007	0	005	0 7	020	0	068	0	382	002	460	094
	90	.040		.040		.058		.050	<u> </u>	.045		.008		278			
95	0	.002		.252		119		33	1:::	.122 642		570	.===	074		125	li
1	10	.050	459	.068	326	-,119	157	262	045	163	.062	492	.115	379	.183	330	.190
I	20	072	251	-,109	209	142	-,140	187	109	→.258	065	382	035	334	.016	297	.022
I	130	082	-,184	092	-,163	081	162	120	-,122	161	105	232	082	252	100	239	100
1	50	092		092		092		109		-,135		~.190	035	221 187	060	225 199	090
1	60	034	063	047	047	021	026	03h 009	022	088 018	033	132	050	185	088	221	126
[70 80	-,023	040	.020	025	001	.046	.026	.062	.010	.030	079	002	-, 189	060	827	→.100
1	90	.050		.069		.090		,100		.044		-,062		198		-,222	
	 _	1 127			-												

(h) M,0.86.

Per-		т				_	Angle of a	ttack, de	rees.						
cent	Per-		4		2		0	-	-				5		
eemi- epan	chard	Upper surface	Lover surface	Upper surface	Lower surface	Upper exrfece.	Lower surface	Upper surface	Lever surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface
15	0	0.470		0.552		0.592		0.570		0.455		0.241		0.050	
	10	-112	-0.185	.067	-0.152	012	-0.038	097	0.045	-,190	0.160	359	0.215	~.150	0.355
	50	.073	168	023	148	058	058	-,122	.012	210	.073	351	.140	438	.262
	30 40	.018	190	018 045	165 190	090 108	082	155	018 055	230	.071	379 368	7.099	-, 430 -, 429	.210
	50	000	212	073	190	134	115	195		258		350		-,120	
	60	065	241	÷.090	220	-,152	150	208	100	262	025	410	030	460	.079
	70 80	068	262	092	-,251 -,185	134	180	17	1k2	205	010	320	050	400	.030
	90	030		051		077		097		110		182		-,170	
35	•	.270	===	.350	1===	.378 060	:::	.261 232		.108 -,434		090 719	===	238 966	
	10	.15%	309	.040	-,271	078	130	-,190	013	-,345	,120	-,601	.199	895	.298
	20	.009	321	039	290	130	160	224	071	340	018	498 481	.079	809 708	.178 .131
	30 40	052	-,289	081	271	170 181	178	252 258	099	352	016	479		+.625	
	50	080		110		-, 181		238		300		414		-,512	- 5.5
	60 70	020	188	043	179	082	-,148	128	-,100 -,084	159	039 040	205	017	258	.015
	80	1 = = =	068	l	-,068		049	1	037		008		0		.040
	90	.030		.012		.011		.001		.010		022		009	
55	0	.111	===	.230		.459		.470	1 ===	.279		.068		174	
	10	.078	-,329	.030	-, 339	106	170	236	021	-,160	.108	770	.180	-1.109	.269
	20	001	330	039	291	140	171 158	242	062	382 341	.036	629 483	.099	-1.000 -,810	.191
	30	040	252	078	241	163	156	239	010			l			
	50	079		-,100		155		199		250	.060	-,281	.070	-, \$70 -, 320	.100
	60 70	067	018 105	090 096	030 118	130 077	003	155	-,058	-,190 -,102	035	215 133	015	-,191	.017
	80	.001	031	021	045	020	,001	037	-,009	045	.010	068	.023	-, 109	.010
	90	.042	.030	.031	.027	.032	.030	.029	.042	.029	.042	.001	.042	033	.041
75	9	.223		.365		080		302		672		132 998		312 796	:::
	10	.066	350	.045	319	091	~.150	242	-,012	450	.130	662 611	.194	732 677	.294 .189
	20 30	002	323	055	278	130	154	243	055 100	363 320	010	520	,028	-,650	.109
	160	068		.062		142		210		256)	17		615	===
	50 60	091	140	142	148	150	~.129	199 137	100	218	055	329 225	052	566 511	5
	70	030	072	015	082	055	068	∸.072	068	068	032	124	-,042	430	011
	80	008	008	0.040	017	002	016	010	010	010	010	050	.007	363 263	→.050
~	90	.126	1	.262		. 187		.408		.154		+.010		074	
95	5	.109		.076		119		- 301		697 160	.062	682 576	.112	-, 120 -, 382	.188
	10 20	089	359	021	35	140 142	179 132	202	052 121	235	073	453	057	- 342	.020
	30 40		1					1						~	-,088
		081	159	099	162	090	133	127	117	-,127	103	273	-, 127	250 220	-,066
	50	079	-,039	039	039	019	024	050	-,028	050	028	150	050	180	-,050
	70	012	013	022	022	.000	,000	010	→.010	028	014 .03B	141	058	189 184	082 050
	80	.010	.048	.036	.040	.092	.060	.047	.050	.023	.036	079		-, 187	
	1	.015		1 .013		10,2				1 77			-		=

TABLE V.- CONTINUED

(i) M,0.88.

	Per-						Angl	e of attac	ik, degrees						\neg
Percent sent man	cent			· .	e	1	1		2				5		
	chord	Upper surface	Lower surface	Upper surface	Lover surface	Upper surfece	Lower surface	Upper eurface	Lover	Upper surface	Lover surface	Upper surface	Lower surface	Upper	Lower surface
15	۰	0.480		0.570		0.609		0.592		0.460	:::	0.268		0.125	:::
	10	.135	-0,190	.090	-0.135	010	-0.019	082	0.067	-,200	0,160	~.332	0.262	440	0.350
	20	.080	-,180	.025	130	060	o\ó	118	.024	222	.095	325	.190	428	.264
i	30 80	.030	209	~.019	155	099 110	082	149 -,160	035 042	252 255	,043 ,020	345 332	.110	122	.183 .150
		010	221	071	182	-,142	-,100	185	042	272		350		122	
	50 60	060	267	092	~.239	160	155	-,202	100	300	-,040	390	.017	460	.063
	70		-,300		260		189	180	140	-,260	090 068	190	038	486	.010
	80 90	060 032	230	099	200	147 085	145	100	100	134	000	192			
35	0	,268		- 355		-373		.270		.095		008		076	
		.173		.097	280	082	112	233 190	-,016	451 353	.114	743 628	.217	-1.022 930	.282
	10	.093	338 363	.037 042	298	092 148	112	232	075	352	.007	508	.092	803	.153
1 1	30	037	326	096	286	172	190	265	-,107	370	025	495	.059	678	.134
	10	068		122		207		280		393		505		605	
l 1	50 60	085	212	125	198	195 100	145	250 130	103	364 178	049	405	002	561	.010
	70	029	-,154		148		128		-,086		049		013		.008
	- Bo		072		074		050		040		012		.015		.022
	90	.022		.010		.015	 -	.010		008		008		0	
55	0 5	.087		.250		.479	===	.160			===	.060		122	
	10	.098	368	.029	~.350	129	-,158	262	044	450	.080	-,880	.198	-1.076	.262
	20	030	363 -,290	080	312 262	-,162 -,150	170	268 261	083 089	-, 434 -, 400	018	627	.105	930 835	.172
	30 40	050	-,290	00	202		150	201	009						
1	50	070		108		167		214		267		275		518	
1		058 028	028	092	020 065	140	002	169 104	,022 -,070	200 132	050	210	011	397 270	.010
l	70	wa	030	020	040	027	~.030	~.050	018	065	012	-,065	.013	168	.028
i	<u> 50</u> .	.045	,030	.045	.028	.030	,035	.025	.010	.009	.040	.008	.040	067	.028
75	0	.227		.372		.516 -,111	:::	.¥19		.110 797	:::	-1,173	1 :::	302 938	!
	10	.109	383	.048	327	123	-,110	247	012	549	.122	-1.062	220	862	.270
1 1	20	.032	327	027	280	147	131	~,246	053	352	.050	-,710	.122	732	.171
1 3	30 40	030	-,286	077 088	273	174	.163	25k 208	100	347	018	127	.052	-,642 -,582	.092
1 1		075	1 :::	000		162		201	1 ===	-,230		~,217		535	
1 1	50 60	-,049	133	077	140	120	103	135	091	142	067	143	030	175	030
1 1	TO AD	0.019	062	040	075	048	→.055	058 011	058 018	068	040	068 018	025	412 48	025 049
	90	.063	000	.010	010	.062		.052		.045		.045		262	
95	0	.090		.258		.490		. 18		.158		077		080	
•	.5 "	.129	-,108	.067		153 178	167	360 302	060	848 517	.071	699	.140	169	.175
	50 70	020	213	038 120	352 192	-,164	154	199	126	236	080	549	038	368	-,003
1	30							-,130	112	152	102	320	102	-,276	120
1 1	40 50	092 080	174	110	160	110 095	131	111	-,112	-,130	102	320	102	212	120
	50 60	031	053	033	~.016	017	032	035	~.025	053	035	183	026	209	073
1	70	015	032	015	011	002	010	009	004	020	020	-,166	030	212 202	097
1	80	.035	.035	.032	.035	.059	.068	.052	.052	.022	.044	103 087	.022	202 204	070
	. 90	.060	1	.062		,100		.092		,000		007		~	لتتسا

(j) M,0.90.

	-						Ang	le of attac	k, degrees						
Perment.	Per-	<u> </u>	4					- 1	2				5	1)
semi spen	shord	Upper	Lover	Upper eurface	Lower surface	Upper surface	Lower surface	Upper eurface	Lower surface	Upper	Lower surface	Upper aurface	Lower surface	Upper surface	Lower surface
15	0	0.490		0.588		0.620		0.599		0.482		0.308	===	0.100	
	. 5		-0.187	.050	-0.107		-0.017	099	0.061	195	0.122	320	0.260	436	0.350
	10 20	.133	180	.015	-0.107 113	040	048	120	0.000	210	.105	310	.190	~.426	.265
	30	.020	248	023	173	075	-,122	-,160	060	-,249	.021	335	.087	-,429	.150
	30 No	0	~.230	050	~.168	100	105	169	048	239	-020	316	.088	419	.140
į	50 60	050		090	'	118		192	105	267 300	040	339 379	.011	419 456	.070
	60	072	295 335	112	230 276	140	160 203	218	150		095		040		.001
	70 80	080	308	118	-,238	148	160	220	110	324	062	-, 414	028	492	.012
	90	047		072		088		-,118		200		368		170	
35	0	.279		-371		.385		.281		.120		041		170	
	5	.169		.071	1	046		219		30		790 585	.201	-1.06 ⁹ 920	.299
	10	-091	331	.019	232 280	067 130	141 180	179 220	004	313	.010	1485	.070	778	.150
	20 30	011	368 339	059 108	268	180	200	260	100	360	020	176	.000	662	.120
	¥6	079		→.138		-,205		290		-, 199		510		591	
	50	~.09 8		140		199		280		-, 398		192		550	
	60	033	~311	062	216	092	169	141	100	271	051	379	020	440	.025
	70		164		~.140		139 056	~.128	081	141	0% 008	308	011	391	.019
į	80 90	.022	071	.015	071	.011		.017	0,0	.012		010		.019	
52	0	.097		.316		.460		.165		.308		.122		075	
~	5		!											1	
	10	.080	387	.008	-, 311	096	-,199	264	052	123	.085	942 565	.148	904 822	.265 .16 ³
	20	0 010	-,402	059	300 260	140 165	193 177	278 288	082 088	428	012	-,550	.050	530	.110
	30	040	362	095	200	105		200					1		
	50	082	1	115		152		210		253		⊸.¥8o		450	
	60	070	~.020	096	013	123	.010	170	.024	190	.054	193	.078	515	.100
	70	038	112	055	090	07	102	105 050	068	117 050	040	050	015	214	.020
	80 90	010 .035	039 .035	010	→.020 .035	032 .035	025	025	019	.025	.040	.025	.040	.025	.040
75	0	.200		.125		.503		.411		.147		077		-,288	
.,	۱ ۶	.138		.085		058		~332		824		-1.150	{	-1.103	
	10	-073	615	.032	305	072	170	249	010	604	.115	-1.093	.203	-1.020	.264
	20 30	062	- 360 - 268	043 090	262 258	120 150	163 185	250 260	047 100	385	.039 028	917 600	.015	717	.002
	1 %	092		095		132		212		258		279	1-71	628	
	20	100	1	-,120	~	-,148		200		232		230		538	
		073	159	082	~.1h0	103	125	~.132	~.100	139	072	139	032	430	032
	70	043	078	038	078	060	~.060	050	050	055	050	055 009	030	365	050 063
	80 90	013	013	.057	014	.065	1005	009	.002	009		.052		235	001
95	-~	.083		.340		.471		120		.184		055		079	
"	ا ق	.119		.037	1 ===	109		372		874		990		482	
	10	.010	~.548	062	→. 330	-,15	226	315	065	-,612	.052	810	.142	433	.173
	20	132	205	147	162	170	177	178	150	220	109	608	055	350	014
	30			- 105	152	105	149	-,126	185	144	110	325	110	300	125
	10	105 095	163	095	152	095	149	-,110	105	- 125	110	263	2.110	262	125
	50	010	060	035	,026	014	014	023	030	050	050	185	026	-,232	083
!	70	022	042	008	005	.002	004	020	0	- 030	025	170	019	238	111
	80	.024	.019	.042	.070	.060	070	.059	~.050	.020	.040	120	.040	237	079
1	90	.053	1	-092		.085		.088		.053		085		241	

TABLE V.- CONCLUDED

(k) M,0.92.

							And	le of att	ack. degre	40		-			
Per-	Per-				_		,	2		1		6		1	
spen spen	cent chord	Opper	Lower	Opper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper sur/ece	Lower surface	Upper surface	Lower surface
15	0	0.525		0.590		0.622		0.608		0.199		0.330	1 :::	0.230	
	.5	-116	-0.130		-0.090		-0.010	100	0.080	-,209	0.180	- 310	0.300	- 372	0.340
	50 TO	.070	162	.012	140	~.თ	070	130	0	-,220	.090	296	.200	~.362	.230
	30	.030	179	020	-,148	~.087	120	160	015	250	.060	~329	.151	381	.181
1 1	160 50	050	202	045 068	180	102	~.102	-,167 -,202	055	210 270		305		372	.130
1 3	60	068	265	118	242	170	182	530	-,119	310	060	~.365	.020	412	.039
	70		318		-,298	200	227	271	170 140	322	111 091	-,405	035	450	020 015
	80 90	0%	-,305	140 090	290	125		-,198	140	330	091	400		- 150	
35	0	.315		.378 .080		.405		.300		-,137	===	035 962	:::	.255	
	10	.090	285	.022	263	072	-,145	→. 185	018	325	.116	- 533	.223	050	.265
	20	.010	-,302	057	565	140	183	-,225 -,271	077	328 358	027	138	.102	-, 198 -, 196	.140
i I	30 40	038 073	302	120 147	297	196 -,225	-,220	292	113	363	021	- 160	.0,9	-502	.0,-
	50	105		162		246		312		392	<u>-</u>	473		51	
ıı	60 70	040	31 ⁻¹ 265	087 172	325	152	-,245	-,220 -,170	120 098	299 295	068 065	370 360	018	ic2 352	002 028
i I	70 Ao		065		090		-,073		00		025		015		.002
Ш	90	.032		~.003		012		.010		.010		049		084	
95	0	.160		.260		.452	1 ===	,468		.330		.138		.040	
l i	น์	.058	-, 150	.003	342	117	219	272	050	419	,080	-1.008	.188	-1.128	.223
1 1	70	021	300	065 100	302	172	237 230	795	092 098	430	.010 850	583 530	.096 .048	-,943 -,607	.125
1	30 40	067	351		32				090						
1 1	50	095		120		-,162		212	-027	447	.053	598 487	.078	632 570	.082
	60 70	0°0 043	010	105 063	010	137 100	110	-, 155 -, 108	070	095	055	138	020	189	-,020
1 1	90	010	023	010	035	038	035	053	012	030	.008	050	-010	053	.010
	90	.034	.048	.020	.039	.025	.038	.023	.040	.023	.040	050	.040	140	.040
75	0	.098 .098	1 ::::	.370	1 ===	092	1 ::::	397		800		-1.150		-1.240	
1 1	10	.055	50	.079	-,+38	100	210	299	022	642	109	-1.075	.193	-1.150	.232
	20 30	065	105	047	370	152	-,189	278	070 112	470 482	.030 038	970 820	.040	-1.059	.130
	140	065		060		155		-,229		322		548		610	
	50	100		128		173 110	-,160	229 156	-,118	192 118		199 157	040	528 355	035
	60 70	072 033	130 060	099 060	165	067	091	075	075	-058	035	075	-,035	-,157	032
1 !	50	.009	011	١ ۰	019	020	015	018	033	- 020	0	-,020	0	059	0
	90	.0%		.040 eAq.	1	.040		.049		.058		020		.019	
25	9	.099		.067	1 ===	100		- 102	1	-,688		957		735	
1 1	10	0		037		147		329		781		840		670	
1 1	.00 30	150	1 ===	179	1 ===	200	1 ===	227	1 ::::	357		693		592	
i I	¥0	099	1 222	102	1 222	102	1 ====	130	1	108		404		430	
i 1	50	06"		097		097		108		116		329	1 :::	373	
1 1	70	032	1 ::::	026	1 ===	015		030	.===	055 026		230		30 ⁹	
1 1	8o	.019		.047		.068		.062		.018		147		267	
L_I	90				1 =	1						<u> </u>			

(1) M,C.94.

							Ancl	e of atte	k, degree						
cent	Per-			_	,			2			·		6	7	
oomi ~ upan	cent chord	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper eurface	Lower eurface	Upper curface	Lower surface	Upper surface	Lover surface	Upper surface	Lower surface
15		0.540		0.595		0.640		0.620		0.505		0.375		0.270	
	5														
	10	-135	-0.126	.099	-0.100	.030	0.018	060	0.091	187	0.199	290	0.291	345	0.335
i	20	.055	-,151 -,1%	023	140	031	046	100 140	009	200 230	.071	270	.142	338 359	.170
. 1	30 40	010	-,205	050	190	095	- 100	150	045	230	030	280	.100	-,341	.120
- 1	50	070		095	1	131		185		- 254		320		~.363	
	60	~.099	-,267	125	250	170	170	270	111	300	042	350	.018	400	.038
i	70	-;	322		311		230		-,150	340	→-119	-,390	059 051	440	040 040
	%0 %0	119 112	320	154 160	310	221	226	265 265	170	340	100	399	051	442	040
						_				.144		.019		063	
35	•	.345		.398		050	1 = = =	-,203		489		-,912		-1.042	
- 1	5 10	.084	265	.040	255	069	123	170	013	312	.124	-,155	.204	603	.245
	20	1 .004	268	-,048	262	132	161	215	073	321	.034	415	.102	458	.137
- 1	. 30	053	2 ^e 2	106	268	-,190	197	-,260	120	352	~.032	+30	.037	468	.06₺
- 1	40	100		150		218		297		375		445		486	
- 1	% 60	132 077	320	-,174	-,325	248	250	310	178	388	089	460	050	497	032
l	70	162	-, 361	198	364	-,255	-,275	303	152	332	098	370	060	389	072
- 1	50		208		194		100		055		067		070		068
!	90	.009		-,005		.030	1	.003		053		139		166	
22	0	.213		.276		.468	T	.450		. 320		.179		.070	
	5					1						1	-5.7	1 7 7.7	<u>-</u> -
	10	.035	329	022	360	123	195	271	088 138	434	020	560	.059	-1.032 855	.170
	20 30	050	362	102	370 350	182	217 223	302 342	-,150	-,467	060	519	.008	599	.018
	¥6	0,0			1							1		1 222	
	50	126		151		235		~, 382		516		592		638	
	60	~.097	140	134	162	13k	.005	-,256	.010	483	-026	- 599	.040	659	.022
	70 80	018	140	090 042	118 035	020	058	040	072	19h 060	092	370	071	500 215	098 070
	90	.030	.050	.010	-010	.010	000	.020	029	,010	.030	010	009	101	040
75	0	.307		.383		.173		.428		.200		,028		077	
',		.078		.064		129	-	369		773		-1.026		-1.116	
	10	.032	525	018	162	-,145	228	301	037	655	.091	943	.172	-1.038	-192
	20 30	032 072	-,410	060	398	180 168	210	330 332	071 119	530	.018 048	709	.072	968 900	.088
	1 %	080	390	099		005		-,223		508	7.000	- 593		792	
	50	111		129		172	1	168		388		-,575		599	
	60	090	107	100	-,132	124	-,148	140	-,113	-,113	090	187	070	314	082
. '	. 70 . 80	030	059	030	075	068 0	090	072	055	085	0.038	065	0.005	182	073
	. 90	.032	012	.005	~016	1°.069		.074		020	.036	035		071	067
95		.200		.285		.491		129		.220		.051		032	
'	5	.080		.077		120	1	- 132		865		-1.019		~.855	
1	10	0	600	022	563	-,164	216	3A7	053	818		- 959		778	-137
	20 30	178	440	203	377	267	280	290	212	672	1	858	===	718	082
	1 6	107	070	091	- 129	- H7	070	108	-,112	-,oo8	1 = = =	-,393		508	-,249
		-,063		082		-,100		-, 109		047		300		-,449	
ì	50 60	012	030	~.030	~.022	.012	012	022	014	-,022		1 -,190		341	092
	70	.005	002	012	.002	.007	.008	.01	.002	013		162		322	075
1	80	.050	.052	.054	.065	.064	.080	.069	.072	.030		092	1 ::::	259	022
	_ ~	1.0,0				1	1	٠			1	1			

TABLE VI.- PRESSURE COEFFICIENTS ON A WING HAVING A SWEEPBACK ANGLE OF 35° AND AN ASPECT RATIO OF 6 IN COMBINATION WITH A FUSELAGE.

(a) M,0.40.

	1"					Angle of a	ttack, degre	45					
Per-	Per-		·	-	2		0		2				6
Semi- span	chord	Upper surface	Lower	Upper surface	Lower surface	Opper surface	Lower surface	Upper surface	lower surface	Upper surface	Lover	Upper	Lower
12.5	0	-0.98A		-0,026		0.500		0.651		0.568		0.125	
	5	.250		.113		035		189		368		608	
	10	.175	-o. 328	.071	~0.209	05A 087	-0.077	157	0,042 ,003	267 248	0.165	476 367	0.277 ,170
	20 30	.084	295 231	.003 -,032	199 161	-,119	115 090	157 183	003	255	.063	347	.158
	1 %	003	-,256	064	193	-,125	131	183	061	-,245	.003	319	.071
	50	036		~.080		126		173		-,223		283	
	60	-,036	-,214	071	-,209	-,125	~,205	- 157	087	197	035	251	.032
	70	032	192	~.064	154	109	119	125	087	174	055	206	.003
	80	~.019	133	048	-,113	077	093	090	061	119	-,029	111	.003
	90	003	068	-,006	058	029	061	035	022	-,061	.003	064	.006
35	9	295 .261	===	.482 .103		,6A. 067		.388 269	===	432 487		904 945	•
	16	.159	-,425	.664	257	067	119	189	.035	-,319	.148	672	.267
	20	.065	-,326	016	225	119	125	-,205	-,029	316	.068	-,473	.164
	30	.023	289	048	219	125	141	199	061	287	.006	-, 376	.103
	40	019	263	080	209	141	~.151	199	077	~.255	023	31£	.068
	50 60	042	247	090	193	131	151	199	093	~.239	045	277	.029
		-,036 -,019	198 127	-,06A -,08A	161 096	119 087	125 087	131	077	174	055 023	215	.035
	1 78	,013	-,062	-	048	022	029	029	.001	055	003	077	.039
	90	.036	003	.032	0	.019	ر	.003	.019	.003	.035	.003	.045
77	0	724		.193		.590		.548		055		318	
		.419		241		.179		.099		.052	17.7	026	
	10	.159	425 328	.048	257	093 119	~.109 ~.119	221	.035 013	-,119	.165 .008	~.701 ~.517	.267
	30	.029	279	048	-,209	-,125	-,125	~.205	045	281	.019	408	.106
	1 40	019		06		125		-,189	-12.2	-,248		318	
	50 60	036		071		125		-,013		-,216		251	
	60	029	166	- 064	129	099	099	125	061	- 165	~,029	190	.010
	70	010	101	039	080	067	061	077	029	103	,003	-,125 -,061	.032
	80	.045	.029	.032	-032	.035	.035	.015	.001	019	.052	001	,0/.1
												,,	
75	0	945 .289		322 .135		.k8k 067		.644 - 301		.481 552		.32°, 76°;	
	10	.198	-,458	.064	257	087	093	221	.061	400	.190	482	.295
	20	,078	-,328	٠.٠٠٠	254	~.093	- 109	196	.003	319	.077	534	.170
	30	.029	263	032	199	109	125	-,189	054	423	,010	sR s	,100
	40	003	231	058	177	-,119	-,125	183	÷.058	390	.003	-,28/.	.0/8
	20	019 029		- 058 - 055	-,129	099 093	099	-,125	061	18k	029	215	-010
	70	029	159 097	032	-,080	051	061	061	051	037	001	-,10)	.010
	l Åo	.013	036	0.052	026	.003	- 029	-,022	.001	029	005	051	.017
	90	.110	.029	.096	,032	.099	,067	.099	,061	.100	,068	.100	.051
95	0	523		.129		.580		,619		,406		,212	
	.5	.226		.096		~.077		260	l - .	481		- 701	,-
	10	.097	-,213 -,232	.016	-,126 -,177	093 099	-,042 -,123	205 157	.039 058	335 -,223	,10}	601 361	.042
	10	.029	232 190	039	177	~.099	123	157	07/	-,223	042	363	016
	1 46		190		~.155								010
	50	~.068	111	o8o ·		093		109		-,126		154	
	60	-,052	-, 103	064	-,090	-,061	087	077	-,065	~_0QA	058	116	-,052
	70	~.029	052	032	032	~.029	032	029	029	0%	026	0fil	029
	80 90	003	003	.006	.006	.019	,006 ,042	-,029	,006	.003	,006	029	.00)
	1 90	.035	.035	.035	.048	.068	.042	.042	.042	.035	.034	019	.0.95

						Angle of	atinck, deg	rees					
Per-	Per-		8	10)	12		1	,	16	5		ı.B
Seni- span	cont chord	Upper surface	Lover	Upper aurface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Low-E Ractisco
12.5	0 5 10 20 30	-0.399 960 708 540 500	0.366 ,232 ,188	-0.924 -1.083 884 652 586 517	0.467 ,301 ,238 ,169	-1.349 1.316 990 713 999 518	0.547 354 316 241	-1.374 -2.800 -1.925 -,964 -,725 -,613	0.600 .430 .364 .249	-0.804 -1.497 -1.523 -1.333 -1.203 967	0.63k .k6k .392 .28k	-0.635 -1.059 -1.058 -1.033 -1.065 -1.016	0.668 .505 .417
	50 60 70 80 90	399 336 289 196 131	.030 .003 003	317 361 311 222 -,129	.073 .083 .036	-,371 -,371 -,306 -,215 -,117	.134 .091 .065	-,548 -,479 -,390 -,292 -,193	.151 .102 .069 .036	-,778 -,631 -,520 -,318 -,268	.170 .111 .072 .039	915 817 756 635 544	.303 .173 .114 .068 023
35	0 5 10 20 30 10 50 60 70 86	-1.544 -1.389 -1.211 500 500 356 305 248 188 104	.332 .232 .131 .067 .027	-1.685 -1.447 -1.305 -1.205 967 719 523 361 262 162		-1,414 -1,153 -1,049 -1,055 -,990 -,779 -,632 -,463 -,313	. 176 . 329 . 248 . 176 . 117 . 081 . 055 . 055	1.34 1.36 1.269 -987 -954 -954 -882 -882 -692	.502 .357 .239 .177 .108 .062 .036 .003	-1.023 941 843 908 882 892 876 869 810 745 654	.529 .382 .268 .202 .111 .056 .013 033	935 870 788 844 821 821 834 834 805 756	.547 .801 .303 .212 .124 .099 .003 072 202
55	0 5 10 20 30 40 50 60 70 80	641 138 906 809 709 709 440 336 238 164	.332 .232 .131 .003 .007	798 189 891 825 825 765 576 576 394 311	.384 .242 .172 .020 .007	-,697 -,169 -,664 -,698 -,625 -,606 -,583 -,590 -,594 -,502	.127 .280 .199 .026 007	757 187 620 613 587 587 561 561 548 515	.456 .298 .207 .003 030	771 783 549 542 546 546 546 546 546	,480 ,333 ,235 ,013 ,026 ,190	837 169 560 550 550 550 550 560 550 560	.016 -,023
מ	0 5 10 20 30 40 50 60 70 80	.138 876 846 775 634 500 369 305 238 164		.209 553 543 526 500 487 421 411 361 331 030	.341 .202 .129 .053 030 046 060	.218 377 388 371 368 339 339 339 336 052	.384 .248 .150 .065 .013 .052 .078 117	.098 -374 -374 -374 -374 -357 -357 -361 -361 -095	.413 .249 .167 .075 033 079 102 161	- 098 - 412 - 412 - 412 - 412 - 386 - 412 - 415 - 415 - 698	.458 .301 .203 .105 026 065 092 157	583 640 640 630 630 616 640 630 116	. 498 .336 .238 .140 016 055 054 160
97	0 5 10 20 30 40 50 60 70 80	013 809 742 581 255 205 138 111 061		030 642 593 543 245 286 245 199 192 145	.203 .061 .006 	.150 365 385 339 	.219 .067 .010 	.069 -325 -325 -325 -325 -308 -308 -288 -288	.229 .100 .026 .026 	085 327 327 327 327 350 350 350	.261 .135 .048 	212 342 342 342 342 355 355 355 355	.294 .165 .068 094 106 123

TABLE VI.- CONTINUED

(b) M,0.60.

Per-	Per-	L				ingle of at	tack, degre						
cent	cent	_	4	•	4		0	_	2		<u> </u>	L	6
Semi- span	chard	Opper enriace	Lower	Upper surface	Lower	Upper murface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper	Lover surfac
12.5	0	-0.752		0.001	1	0.522		0.703		0.646		0.420	
	5	.264		.188		~.003		175	7.7.7	402		~,655	
	10	.188	-0.350	.090	-0.230	032	-0.090	157	0.040	335	0.173	510	0.285
	20	.094	311	.015	225	073	125	168	032	290	.090	404 389	.168
	30	.030	257	038	181	-,112	100	192	020	~.297 ~.286	.000	360	.057
	40	~.005	278	068	220	132 112	143	198 200	061	269		338	.00
	50 60	039	240	087 090	-,200	-,132	143	180	-,100	240	036	291	.003
•		048	210	±.090 ±.090	175	-,126	-,130	160	090	206	043	-,248	015
	70 Bo	057	154	129	129	080	091	109	065	-,1A0	-,030	-,180	009
	90	002	060	024	060	038	038	025	019	-,070	.018	~.100	.018
35	0	.043		.518		.685		.518 274		192 600		538 964	===
	.5	.260		.124		049	- :	188	.002	398	.162	~.710	.260
	10	.153	~.46k	.070	314	042	136 150	228	-,052	370	.068	548	.140
	20	.057	~.370	024 068	266 248	112 135	157	225	063	330	.022	430	.005
	30 40	.012 039	322 292	093	240	-,150	-,162	222	-,105	302	025	370	.026
	5 0	065	-,275	-,108	228	133	-,161	210	-,109	272	034	-,314	-,008
	66	~,050	213	080	180	116	126	157	100	205	- 042	~,238	-,017
	70	029	110	044	-,120	-,063	~.082	110	-,080	140	020	-,170	.008
	l é	.003	067	-,010	-,O45	~,019	018	- 052	052	067	.025	092	.018
	90	.030	0,007	.013	.010	.030	.029	.010	.014	0	.043	024	.040
55	0	~.330		.225		.604		.633	~	.178		~.065	
	. 5	,209		.160		.129	- :.:	.062	.020	135 480	.182	-,119 -,752	.258
	10	.140	-,480	.046	320	~.092	152	243	040		.080	590	.117
	20	.040	378	020	268	-,122 -,144	-,152	225 -,220	~,072	~ 375 ~ 325	.023	470	.080
	30 40	010	325	062 088	250	150	165	-,210	012	293		370	
1		053	===	100	1 ===	-,150		190	122	-,250		295	1
	50	053	-,203	070	174	-,115	-,13h	-,135	083	- 165	-,035	220	016
		010	-,135	055	108	080	090	098	040	+,129	-,009	162	002
	70 80	-,006	32	008		020		022		- 05		-,089	
	90	,020	0	.018	,011	.020	.020	.019	>O42	,022	.050	030	.025
דד	0	765		281		,448		.682 291		.593 695	1:::	-,813	
		.280	-,475	.060	321	039 072	-,109	238	,oko	482	.189	732	.262
	10 20	.069	348	-,025	267	-, 101	122	218	-,030	-,360	.080	581	138
	30	.018	391	061	-,241	-,121	-,131	-,205	065	300	.017	555	.068
	1 40	030	-,252	-,092	820	-,131	-,123	-,189	~.071	-,267	005	360	.022
	50	035	1	090		110		152		-,210		-,260	
	I 66	018	165	080	-,160	098	~,097	125	175	169	038	-,210	030
	70	-,012	-,105	059	-,109	042	053	075	057	108	020	147	020
	8o	,018	017	0	045	002	005	~.020	.008	035	.017	-,080	.019
	90	, 122	.030	.093	.030	.112	.059	.060	.060	.095	,060	.081	.030
95	0	273		.176		.517	===	.660 -,279		-,602		742	
	.5.	,219		.102	1k1	077	Oh1	279	.031	392	.122	652	,171
	10	.094	193	.001	192	105	-,129	180	077	252	002	155	.018
	20	009	222 187	059	164	116	130	100	095	-,252	046		024
	1 30		167		104		130	:::	055	1.222			
	50	082		-,101	1 222	~.112	1 ===	~,130		148		175	l
	66	065	~.088	069	075	077	065	079	068	~,108	-,060	-,129	051
	70	032	039	~,029	035	- 028	019	-,030	021	048	018	068	020
	Bo	.018	.022	.023	.031	.015	.026	.020	.030	.001	.029	049	.029
	90	.050	.059	.045	.048	.066	.062	.059	.067	.035	.065	-,002	.068

Per-	Per-					Angle of a	ttack, degr						
cent Semi-	cent	8		1		12			, h	16		18	
spen	chord	Upper	Lower surface	Upper	Lower	Upper	Lower surface	Upper	Lover auriace	Upper surface	Lower	Upper	Lover
12.5	0	0,208		0.026		0.157		0.268		0.242		-0.225 -,880	
- 1		-,827		-1.389	0.491	-2.078	0.540	-1.958 -1.790	0.624	-1.154 -1.212	0.660	938	0.720
- 1	10 20	652 501	0.390 .257	922 600	-339	77	.389	-1,202	.466	-1.120	.500	-,910	.542
	30	470	.209	561	.275	630	.316	869	.376	-1,106	.483	~.947	.460
	40	- 440	.125	510	.187	575	.219	686	.260	~.99A	.30%	-,920	.339
	50	402		459		530	.112	612 547	165	869 756	.165	890 839	.195
	60 70	341 264	,050 ,026	-,394 -,317	.098	472 400	.070	-,478	. 104	653	1104	782	.126
	Bo	-,202	.027	-,231	.055	300	067	-,379	.055	477	.077	720	.070
	90	-,111	.040	-,129	.050	163_	.038	252	.052	-,442	.001	-,640	022
35	0	973 -1.170		-1.380 -1.424		-1.238 -1.067		-1.337 974		-1.365 860		990 812	
	10	-,962	.349	-1.247	.421	-,938	.159	855	.492	762	.527	708	.560
	20	846	,215	-1.232	.265	-1.017	.303	~.940	.340	855	.378	795	.410
	30	596 619	.142	872	,188	942	.220	911	.247	832	.270	772	.310
	¥0		.080	598	.120	899	.090	886 868	.075	-,824 -,820	.178	773 779	.211 .112
	50 60	329 252	.038 .018	480 380	.062 .038	855 790	.043	835	.027	-,803	.032	775	.032
	70	176	.022	302	.025	715	,032	792	ooe	787	027	758	.019
	8o	110	-037	-,207	.029	592	.012	722 640	057 156	740 673	078 198	733 694	.088
55	90	040	.040	-,135	.041	477 470	060	-,580	-,120	-,653		-,783	
"	0 5	302 -,197		-,200	===	185		-:,208	1 225	-,200		-,210	
	10	810	.314	-,780	.400	-,620	.400	570	.440	··.550	.478	571	.520
	20	708	.180	~.759	.270	620	.270	570 560	.301	549 543	.330	570 570	.380
	30 40	-,600 -,488	.114	720 664	.195	5h0 5h0	.110	560		5A0		570	
	50	384		594		-,5k0		-,550		540		570	
	60	285	007	-,503	.040	520	020	5A0	030	530	041	560	.009
	70 80	230	~.005	- 446 - 364	.021	510 490	050	550 540	-,064	557 540	068	580 570	041
	90	160 100	.015	290	031	-,460	~.165	510	197	510	-,210	540	209
75	0	.255		.340		333		~.008		166		.199	
	.5	931	1	522		392 386	.362	-,442 -,442	.452	-,459 -,459	.195	396 392	.410
	10 20	~.900 ~.820	.311	522 502	.345	381	.302	442	.301	-331	.328	196	.253
	30	-,704	.090	470	.124	377	.117	-,442	.185	451	.222	~.396	.155
	40	- 569	.041	125	.062	371	.045	- 440	,103	450	.129	~.400	.092
	50 60	10 329	016	370 355	030	339 355	068	- 413 - 438	-,052	430 460	069	369 393	069
	70	-,231	018	312	049	340	095	38	-,103	-,160	101	~.393	105
	80	150	.002	277	-,062	337	-,126	438	131	455	130	393	130
	90	.051	.020	082	082	042	160	-,082	~.198	075	198	060	1 <u>79</u>
95	0 5	.172 799		751		132		.097 392		02B 360	1 ===	172 370	
	10	749	,201	722	.218	819	.235	380	.250	338	.275	370	.302
	20	639	.058	682	.065	855	.072	f –.380	.092	365	.120	360	.152
	30		003		002		003		.009		.026		.03
	40 50	275		-,278		300		338		372		399	
	66	-,207	057	209	078	258	099	333	120	372	130	399	120
	70	145	032	-,160	062	217	085	323	~.124	373	139	399	160
	80	095	.021	120	039	199	069	313 298	120 158	374	147	400	150
	90	050	.011	098	030	167	063	-,298	170	949	192	370	195

TABLE VI.- CONTINUED

(c) M,0.70.

Per-						Angle of	attack, degre	**			
cent	Per-	-	4		e		,			4	
Semi- span	chard	Upper surface	Lover surface	Upper surface	Lower surface	Opper surface	Lower surface	Upper surface	Lower surface	Opper surface	Lower surface
12.5	0	-0.474		0.045		0.500		0.713		0.707	
	10	.260	-0.353	.163	-0.242	015	-0.122	159 152	0.030	316 260	-0.139
	20	.ogi	326	.022	239	072	150	172	040	268	
	. 30 . 10	019	288	032 065	200 243	118 115	126 182	206	032	262	025
	50	054	309	090	2-3	157	102	220 227	100	282 277	032
	60	062	279	092	225	150	178	203	119	250	071
	70 80	06A 0A3	240 180	091 055	199 182	~.137 ~.098	165 126	191	-,123	223	÷.079
	90	020	100	034	070	052	070	131 064	028 028	153 092	.057
35	0	.247		.533 .138	===	.685 041		.570 280		.187 528	
	10	.151	490	.073	363	045	190	198	028	350	.110
	50	.045	398	022	314	121	192	252	080	350	.018
	30	010 052	350 324	068 102	292 282	148 172	200 206	256 256	112 132	338 315	033 067
	50	080	295	122	268	170	207	243	148	285	092
	60	065	238	100	213	168	168	194	125	550	088
	. 70 80	047 010	159 062	068	145 077	096 053	108 052	145	080 032	158	048 010
) %	.018	009	.012	0.011	.015	.002	0.017	.018	0,010	.026
55	9	090		.260 .226		.600 .180		.652		.426	===
	10	.150	500	.051	370	~.089	202	260	011	122	.101
	20	008 050	389 340	021 069	310 2 0 5	130 150	200 200	250 255	070 105	350	.020
	1 %	069		100	205	162	20	238	,	326 296	030
	50	059		109		161		~.220		260	
	70	055 038	200 130	078 060	190 125	125	160 100	161 120	110 090	196 142	075 041
	l åö	1 5.05		010		030	1	030		063	
	90	.030	.017	.020	.020	.020	.020	.020	.020	.020	.020
75	%	553 .270		209 .162		397 009		.692 291		.662 552	
	10	.159	536	.069	35A	058	211	247	.003	415	.122
	20	.058	375 313	014 058	289 270	105 120	208 227	238 218	065 101	336 294	024
	46	~.040	272	090	232	110	- 209	218	105	262	045
	50	050		088		119	-55	177		208	
	60 70	050 032	180 110	078 055	170 095	105 068	147 105	170 116	105 067	162 107	042
	1 60	.005	040	010	032	009	040	035	.002	042	010
	90	.190	.030	.115	.030	.117	.018	.112	.0%	105	.041
95	9	105 .208	:::	.183	::::	.5A5 059		.682 287		.593 513	
	10	.075	243	.005	169	103	079	242	.014	372	.085
	20	~.031	240 215	071	202	122	169 160	192	110 126	252	060 092
	30	===	215		202] [[160		126	1 :::	092
	50	105		122		122		144		160	
	60	079	084	094	111	090	093	099	091 049	116	069
	70 80	-,039 ,001	040 .015	045 .002	040	045	050 .018	055	049	056	0%
	1 %	.039	.050	.040	.052	.059	.000	.050	.000	.039	.061

						Angle of	attack, degre	*			
Per_ cent	Per-	- 6		8		10	,	12		24	
Semi- Span	chord	Upper surface	Lower	Upper surface	Lower surface	Upper surface	Lower .	Upper surface	Lover	Upper surface	Lower surface
12.5	0	0.578		0.427		0.304		0.157		0.070	
	,	640	7.7	-1.030		-1.442	27.2	-1.930	0.558	-1.708 -1.575	0.629
	10 20	528	0.289	760 552	0.398 .¥€2	-1.028 666	0.470 .328	-1.525 825	.400	-1.130	.459
	30	413	.110	519	.218	593	.272	738	.325	-,919	-373
	ا ا	382	.050	486	,124	518	.178	658	,221	742	.270
	50	362		448		498		592		670	
	60	317	006	384	.050	430	.0P5	519	.115	610	.148
	70	276	028	320 230	.019	367	.048	152 360	.072 .047	59	.009
	90	198	013 .009	132	.030	1/0	.035	231	.030	342	.009
35	0	-,272		-,163		832		-1.062	===	-1.200	
	.5	-1.007		-1.15		948		975 847	.158	957 836	.472
	10 20	744 580	.245	950 868	.197	978	.395	930	.313	922	.324
	30	464	.062	668	.120	892	.173	883	.222	698	,227
	l 46	398	.010	497	.060	808	.104	85ŏ	.140	672	.132
	50	-,342	026	398	.013	730	.044	820	.070	847	.057
	60	263	027	301	0	640	.018	782 728	.026 015	820 782	046
	70 80	185 102	015 .010	216 137	0.008	5%	.012	658	030	738	088
	90	023	.030	070	.012	307	002	572	113	(49	194
55	0	.106		145		170 190		340 180		162 / 167	
	10	141 781	.230	-,172 -,642	.319	681	.348	595	.420	579	. 446
	20	620	.120	741	.191	659	.222	590	.279	570	.300
	30	500	.051	- 641	.115	(01	.130	572	.180	558	.197
	40	400		530		550		70		~.555	
	50	320	7.7.7	419		493		5\7 511	030	555 540	030
	60 70	239	040 018	312 246	001	430	049	511	039	550	079
	1 66	101	2.010	169	001	- 32/		-,499		545	
	90	040	.030	100	.005	326	119	-,472	211	53%	175
75	. 0	-,825		.354 916		-,715	:::	.378 362		.251 401	
	16	728	.248	881	.300	696	- 335	3/0	.367	401	.407
	20	588	.125	812	.162	CA2	.192	372	.215	409	.254
	30	- 456	.047	722	.080	601	.108 .0A2	369 369	.041	405 408	.146 .070
	40	365	.008	630 480	.025	522	.042	339	.041	377	.0/0
	20	263 208	039	-,405	041	361	052	357	080	397	012
	1 70	140	023	310	037	299	067	357	105	407	→.111
	l eo	072	,008	211	009	242	067	350	124	399	139
	90	.090	.039	.046	.009	.038	065	162	162	190	190
95	9	782	1 :::	.255 809	===	849	===	052		-,160	
	l 16	-,691	.153	765	.192	821	.206	922	.233	162	.247
	20	510	0	679	.035	768	.038	986	020	480	022
	30		057		037		031		020		022
	50	180	1 ::::	330		399	1 ===	302		- 370	
	20	140	090	235	-,079	284	104	-,264	135	3/2	162
	70	090	040	149	050	192	082	238	120	349	163
		054	0	101	020	143	019	221	092	342	157
	90	005	.018	061	005	101	035	189	084	320	187

TABLE VI .- CONTINUED

(d) M,0.75.

Per-	T					Angle of	attack, deg	***			
cent	Per-		1	_	e e		0		2		
Sext.~	cent chord	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Opper surface	Lower surface	Opper surface	Lower surface
12.5		-0.200		0.216		0.600		0.726		0.730	
	5	.209	- - -	.148		021		150		347	
	10	.135	-0.862	.102	-0.510	047	-0.085	140	0.032	308	0.154
	20 30	.052 012	262	.015 015	224 190	094 140	129 120	170 201	031 033	292 311	.062
	1 %	012	268	075	238	161	172	218	100	311 310	027
	1 %	079		102		179		-,225		-, 312	1
	60	084	263	104	⊸.228	170	18A	~.210	122	~.260	074
	70	~.061	233	099	205	160	172	188	121	248	088
	80	~.053	178	067	150	116	133	135	085	180	068
	90	027	093	038	074	065	037	075	038	101	030
35	9	.350 .182		.630 .129	===	.692 102		.580 270		.214 572	
	lú	.105	410	.078	296	084	140	-,192	022	370	.128
	20	015	362	018	262	-,166	168	248	082	-373	.037
	30	040	313	062	243	182	182	250	108	347	012
	40	090	300	090	246	202	187	257	133	325	058
	50 60	114	278	110 080	228	198 162	193	247	150	297	090 070
	1 70	092 060	222 150	000	175 101	162 108	15A 100	167 129	122 080	227 157	032
	1 60	018	053	006	037	044	015	053	018	072	002
	90	.018	""	.047	.034	0	.018	0.000	.026	.002	.036
55	0	.100		.400		.667		.660		.449	
	. 5	.020	l	.124		.075		.043		038	
	10	.078	400	.035	320	140	140	267	030 080	461	.131
	30	017 050	346 306	037	290 268	169 180	159 172	259 255	114	378 342	.039 010
	¥6	083		105		191		250		310	
	50	100		115		189		230		270	
	60	071	189	086	175	140	150	173	120	199	063
	70	~.055	120	070	-,110	100	099	120	060	135	03 0
	80·	010	.011	010	.038	031 .030	.030	050 .030	.030	056	.045
75	0	-,270		011		-557		.698		.680	
.,	5	.160		.132		100		279		6NO	
	10	.084	408	.045	-,295	121	109	244	.009	162	.152
	50	001	331	029 061	25h 245	152	- 142 - 154	239	059	360 310	050 012
	30 40	052 075	270 249	061	219	162 173	142	227 219	099 109	310	012
	50	060		090		112		179	,	212	
	60	078	169	079	149	-, 122	122	148	100	169	~.062
	70	048	095	049	068	072	072	082	059	099	026
	80 90	005	025	.008	021 .056	022 .110	022	025	025 .050	029 .113	.008
95			<u> </u>					.680		.605	
99	0	.059		.318 .087		.641 - 121		279		582	
	16	.027	201	015	136	142	042	242	.019	403	.100
2	20	070	201	078	190	142	152	189	111	254	050
	30		201		~.182		152		122		:083
	No.	- 5.5	===		===						:::
	20 60	114 061	085	105 070	081	116 088	075	132 089	062	145 100	081
	70	051	030	031	029	030	035	029	031	01	039
	θο	.002	.021	.019	.025	.030	.029	.022	.020	.015	.018
	90 ·	.045	.059	.060	.072	.050	.059	.060	.059	.042	.055

rer-	Per-				Angle of attack	,			
cent	cent				8	1 1	10	1	2
Semi- span	chord	Upper surface	Lower surface	Upper surface	Lower	Upper surface	Lower surface	Upper surface	Lower marface
12.5	0	0.649		0.503		0.382		0.289	
	5	609		-1.070		-1.462		-1.697	
	10	503	0.290	811	0.398	-1.094	0.492	-1.291	0.557
	80	\ 30	.174	618	.261	830	.340	659	.403
	30	422	.143	556	.214	652	.263	712	.330
	40	- 392	060	- 500	.122	590	.188	6AA	.230
	50	- 374		- 469		559		602	
	60	330	002	10	.041	500	.084	550	.117
	70	272	022	348	.018	129	.045	486	.073
	80	200	~.010	258	.010	332	.030	387	.050
	90	108	.019	~152	.026	210	.026	251	.030
35	0	125		17		710		833	
	5	-1.002		~.982		-1.019		908	
	10	723	.250	820	.320	874	.382	780	.498
	50	.550	.135	-,815	.200	960	.211	670	-355
	30	450	.073	722	.126	902	.158	822	.260
	40	388	.020	607	.066	845	.088	782	.180
	50	325	022	- 192	.018	797	.025	745	.112
	60	250	022	386	002	720	002	697	.070
	70	168	0	290	.009	638	014	640	.050
	80 90	078 008	.022	200 124	.020 .019	532 415	020 070	572 188	062
55									_
,,	0	.191 138		0% 2%0		130 221		255 212	===
	مُدا	796	.230	873	.310	651	. 360	600	.399
	20	600	.121	769	.190	6A1	.224	599	.359
	30	-,475	.054	657	106	611	.130	560	160
	1 76	381	.0,4	-342		570	.130	570	
	50	~.300		- 📆		530		- 550	
	66	220	030	319	019	470	047	514	039
	70	160	009	232	010	460	060	513	-,078
	80	079	009	-174	020	420		491	010
	90	019	.043	110	001	389	142	470	184
75	0	580		,421		,420		122	3
	5	850		886	l	588		372	
	10	~ 759	.248	870	.312	-,578	.350	- 362	.368
	20	-,602	.127	803	1 .179	551	,208	- 380	.213
	30	-,459	.052	-,722	1 .087	528	,108	~379	.109
	40	- 355	.010	631	,038	-,477	.039	-377	.035
	50	-,249		490		-, 326		-,342	
	60	192	037	- 413	~.037	369	~.068	358	082
	70	124	021	322	030	31B	089	-,361	110
	₽o	059	,009	222	009	272	089	351	131
	90	.102	.038	.047	.010	.048	100	020	162
95	0	.478		.298		.163		.046	
	5	772		7 0 5		-,843		-,900	1
	10	692	.152	I743	.195	826	.209	- 933	.225
	20	512	011	–.68ó	l .ϐ	791	.01É	- 977	.029
	30		061		,0A2		~.055	2211	042
	40						177		
	50	363		338		~.399		279	
	60	120	072	229	087	290	-, 128	246	145
	70	070	036	~143	058	196	100	225	129
	8ó	032	.009	-,090	018	149	069	206	092
	90	.008	.029	-02	.002	119	056	176	086

TABLE VI.- CONTINUED

(e) M,0.80.

r							Any	tle of att	ank, tog er						
Per_	Per-	-	4		e ·		•		2				6		
Sexi- span	chord	Upper surface	Lover surface	Upper surfece	Lover surface	Upper surface	Lower aurface	Upper surface	Lover surface	Upper surface	Lower surface	Upper eurince	Lower surface	Opper surface	Lower surface
12.5	0	-0.119		0.211	!	0.598		0.742 122		0.750		0.683		0.599 890	
· 1	. ?	.219	-0.290	.160	-0.230	.021	-0.072	-,120	0.043	290	0.174	~.509	0.284	729	0.379
	10	.060	293	.020	-240	÷.065	118	-,158	026	2BA	.080	450	.172	619	.249
	30	.003	-263	036	215	119	103	199	030	317	014	461	.135	~.60A ~.568	.202
		-,037	301	076	260	110	-,162	216 230	~.095	321 329	014	- 127		503	
	50 60	076	,	-, 107 -, 112	253	160 160	177	-,214	-,125	-,296	067	-375	011 ·	465	.030
1	- 60	~.082 ~.082	285	- 110	232	147	160	191	-, 121	-,254	078	- 315	030	354	,006
i 1	70 80	-,052	- 167	079	170	103	120	140	090	185	095	229	020	~.250	.010
	90	024	097	037	-,œ3	-,050	070	~.070	032	100	015	123	.007	139	_
35	•	. 122		.608	[-	.703		.608		.268 -,632		015 -1.348		248 -1.548	
1 1	5	.202		.118		072	180	266 192	023	370	.127	690	.230	-1.222	. 330
	· 10	.122	413 390	- 042	392 327	150	198	25	08A	- 399	.035	512	.120	-1.009	.205
1 1	20	035	340	-,048	- 340	175	210	262	118	379	017	480	.055	651	.133
	30	080	~ 322	090	333	199	222	-,265	140	358	060 068	-,426 -,370	038	432	.070
1 1	50 60	-,112	297	164	~ 312	198 160	- 220 - 180	-,252 -,192	152 130	320	-,078	-271	040	250	800.
1 1		056 056	-,230 -,148	112 080	250 167	~105	108	130	- 000	163	040	176	-,020	170	.014
	70 80	010	-048	025	088	038	-,048	054	025	072	-,002	oB	.no8	085	.030
1 1	90	,020	.010	.010	014	.015	.010	,015	.030	.002	.046	-,008	.032	007	.046
20	0	.154		. 396		.650		.673		.k97 040	:::	.243 261		-,400	
ł I		.026 .094	-,369	.018	-,369	-, 100 -, 106	179	259	026	017	.140	1158	.239	1400	.318
	10 20	-:003	361	030	- 121	163	185	-,257	076	375	.044	521	.122	995	.192
		041	320	080	299	~.169	195	250	110	-, 346	.000	380	.059	591 439	.120
	30 40	079		101		179		248 229		-,309 -,270		350 300	===	333	
	50 60	095	-,193	119 085	193	171	169	161	114	190	054	209	-,030	240	.007
	76	046	120	+.066	+.117	130 083	-,084	-,084	060	120	-,023	140	.000	170	.021
1 1	70 80	002		014		019		032	.035	,036 .031	.059	052 .018	.050	087	.000
-	90	.035	.030	.030	.030	.030	.030	.030	.055	.689		.591		- 78	
כז	9	252 -189		038 .131		-,058		-,687 -,289		- 776		-1.371		-1.391	
1 1	16	.028	346	.042	370	091	160	259	009	-,452	.119	-1.197	.251	-1.259	.310
1 1	20	.009	350	0 \ 2	- 320	132	170	259	073 118	369 328	051	519 352	.129	820	.100
1 1	30 40	.045	-, 301	089 118	291 268	149 170	190 173	-,240	124	292	~.040	315	.007	- 120	.040
1	50	075 088	269	118	200	149		-,199		-,223		245		327	
1 !	66	-,079	170	112	188	130	132	162	120	175	069	193	045	278 220	030 039
1 1	70	- 048	098	-,080	116	079	~075	108 038	075 010	118	040	117	.005	12	010
	8o	010	020	030	033 .031	010	011	.115	015	.116	.056	. 108	.0A5	.095	.006
<u> </u>	90	.105	1	+				.693	****	.618		.158		.359 -	
99	9	.089 .136	===	.305		.612 -,092	1 222	-,282		673		-1.225		912	
1	16	.035	~ 193	-,002	~. 167	140	069	-,250	.019	-,439	.113	810	.169	810	.178
1 !	50	070	182	081	210	153	168	194	120	249	05A 088	481	016	-,671	046
1	30		198		209		168		~.135		000	===			
	50	112	1:::	-115		-, 129	122	~.130		-,153		177		299	
1	1 %	080	098	079	081	092	089	097	100	101	069	131	070	213	085 050
1	70	-,046	030	~,040	041	~.025	029	030	031	-,042 .020	~.028 .018	080	029	100	000
1 .	80	.018	.029	.019	1.02%	.035	.030	.032	.035	.052	.051	.013	.019	060	032
	90	.045	.061	.054	.069	,069	.072	.005	.000	1.0,	1 .07	1 .04,	1	1	

(f) M,0.82.

T		1					Ang	le of atta	ck, degree	•					
Per-	Per-		4		e	,	,	2					5		3
Seni- span	cent chord	Upper	Lover	Upper surface	Lower	Upper surface	Lower	Upper aurface	Lover	Opper surface	Lover	Upper surface	Lover	Upper auriace	Lower
12.5	0	-0.108		0.230	===	0.585	===	0.728 116		0.758	===	0.705 617	l:	0.634 810	===
		.257		,112	0.225	.010	-0.080	120	0.034	289	0.163	- 520	0.302	-,672	0.369
	10 20	.188	-0.298 -,289	.023	236	060	130	158	037	240	.070		.185		.240
ı	30	1 :029	266	035	212	~.111	iñ	-,200	~.035	322	.052	-: 23	. 152	- 28	.2k0 .198
	¥o.	013	-,300	072	262	140	175	220	107	~.330	022	179	.072	558	,109
ï	50 60	050 061	293	103 113	~.267	168 169	190	240 226	144	340 311	073	16	.06.2	570 550	.008
- 1	70	065	292	105	240	122	-:ião	~.210	142	276	086	330	018	-,415	0.
- 1	60	037	185	082	-,170	117	133	185	101	214	-,061	-,245	007	272	.no9
	90	026	087	nko	+.085	-,060	057	088	057	107	020	120	.017	135	.0:0
37	0	-1.50	T:::	.625	===	022	===	260	:	- 80	===	.022 -1.110	====	-1.430	222
- 1	10	.230 .150 .028	400	.072	372	- 052	182	190	040 098	- 358	.110	- 22	.244	-1.130	.310 .180
- 1	20	.028	390 342	=:833	1:33	142	202 215	-,::60 -,:270	098 130	108	032	1269	.065	990 725	.100
- 1	30 40	007	322	-,118	~.315	172 200	225	278	-, 158	-375	078	450	.010	601	.050
- 1		090	29	~.150	-002	198	- 33	260	-, 168	- 330	108	260	~.010	- 372 - 250	0
- 1	50 60	060	220	110	230	161	186	203	140 083	250	092 058	260 170	-:632	250 160	010
- 1	70 80	029 .016	132 030	070	-,156 066	105	105 042	05A	030	170 078	018	078	007	075	.027
	90	.052	037	.025	.010	102	025	.010	.012	0	.025	.002	.042	0.	.045
35	0	153		.120		.657		.690		.523		.260		1.15	
- 1	.5	072	- 7.5	.043		.099	187	- 249	021	- 069	.129	-1.170	.234	136	.289
- 1	10	020	400	028	-, 370	092	191	- 2kg	078	1 3 3 7	010	865		1120	.170
- 1	20 30 40	050	- 369	077	330 300	-:131	266	250	107	- 374 - 357	011	395	.060	614	.094
J	₩ 50	108	1222	101 116	===	170 170	===	241 221		-319		330	1:::	507 379	
- 1	60	081	-,229	081	191	123	150	160	-,110	~.189	068	209	020	247	010
- 1	70	063	146	054	111	073	080	099	096	120	-,022	142	001	158	.005
	θο	03ó	1	.000		009		038		040		052		070	
_	90	.014	.001	,040	.038	.040_	.040	.040	.040	.031	0.50	.011	.072	-,002	.0%8
75	9	530	====	.016		-:023		- 279		-:697		-1.3 ⁹¹	===	-317	===
- 1	16	.112	377	.059	361	081	- 166	217	012	515	.138	-1.199 842	.257	-1.237	:309
	20	.026	- 342 - 258	027	- 309 - 292	I 129	I = 180	- 252	- 077	370 336	025	842	.133	-1.002 519	.175
	30 40	027	296 267	072	292	150 166	196 180	239	128	301	052	359 261	.019	616	.045
	50	058 071	201	103	2,0	147	l -	192		240		518		280	
	50 80	070	162	095	173	- 125	140	159	~.117	184	~.080	171	020	230	025 020
- 1	70	039	090	-,061	-,099		-,082 -,010	090 028	078	112	050 002	113 039	.019	170 035	004
- 1	80 90	.000	012	016	028 .050	015 .120	010	026	050	035	049	169	.059	.100	.026
95	-76	.109		.320		.614		.598		.622		. 163		. 380	
″	•	.163		.098		078		268		- 799		-1.217		-1.042	
٠ ا	10	.061	148	010	147	130	059	262	.030	410	.109	1.019	.171	-,888	.192 002
- 1	30 20	050	- 180	100	÷.182 ∹.190	148	160 154	201	!20 126	262	069 093	498	010 061	649	062
- 1	10	1	101		190	i						l			
- 1	50	096		121		-, 128		- 112		167		, 152		279	~
- 1	60	052	073	082	~.091	-,091	072	089	075	~.111	072	125	06A	210	088
1	20	~,018	012	~.031	021 .041	021	019 .049	021	019 .033	054 .009	-,025 .030	-,079 029	024 .016	145 105	033
- 1	90	.030	.049	.020	.085	.032	.089	.035	.009	.060	.069	.017	.016	059	002
		1.5/1		1 ,510	1,,	1	1	1	1				1		

TABLE VI.- CONTINUED

(g) M,0.84.

						_							
Per-	Per-	<u> </u>					Angle of at	tack, dagre	••				
Seat-	cent				ę			2		<u></u>		<u> </u>	<u> </u>
span	chord	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover surface	Upper	Lower surface
12.5	0 5	-0.08A	:::	0.302		0.638		0.762		0.665		0.727	
	ம்	179	-0.324	.110	~0.203	006	-0.042	132 132	0.071	125 369	0.088	- 588	0.298
	20	.078	322	.025	226	066	065	165	006	392	012	515 118	180
	30	.010	300	034	203	089	068	210	011	430	027	178	142
	40	025	340	068	258	146	150	232	081	- 443	102	478	.062
	50 60	070 084	350	101 113	272	172 172	178	256		169	7.77	- 500	
	70	087	368	110	247	160	165	217 222	121 123	397	166 179	502 138	012 032
	80	062	220	080	182	118	120	162	092	315	118	272	020
	90	~.032	118	O45	088	038	053	.072	037	210	037	139	.002
35	0 5	.469		.65A .120		.722		.600		.334		.043	
	16	.135	-,424	.072	418	062	145	292 210		770		-1.270	
	20	.010	447	033	393	158	172	280	068	372	.030	980 710	.190 .082
	30	028	-,412	062	390	184	192	295	109	-,442	030	600	.002
	40	078	389	120	367	208	206	300	140	422	073	630	046
	50 60	103 080	3\2 260	140	368	203	212	280	158	358	106	528	088
	70	050	166	102 065	298	161 106	168 100	212 145	133 082	264	100	302	088
	ào	006	060	028	120	~.032	047	062	062	178 084	060 .025	216 126	065
	90	.030	.010	.038	038	.030	.020	.002	.027	015	.012	052	001
55	5	.211 020		.457		.690		.670		.508		302	
	10	020	627	.115	-, 383	.087 119	144	290	.008	146 690		336	- 2.7
	80	0.100	381	011	330	148	161	279	051	421	.13C	1180 981	.218
	30	035	356	~.086	330	170	175	274	090	399	029	695	.038
	40	070		119		180		261		360		400	
	50 60	089 059	201	120		172		237		310		~.263	- ,
	70	040	119	091 060	199 111	121 070	131 060	167	100 103	219 145	074 037	207	049 020
	èo i	.008		003		1 0.00		021		066	031	060	
	90	.045	.035	.036	.035	.057	.065	.040	.057	.011	.040	.010	.010
75	0	209		.095		.581		.720		.705	-	.623	
	5 10	.180	750	.141	362	062 089	112	288 272	.030	991 702	.156	-1.296 -1.162	.248
	20	.007	346	027	298	112	132	270	042	363	.056	979	.126
	30	0k1	319	065	279	146	159	251	089	34i	013	467	.054
	10	072	~.268	100	247	162	145	240	102	312	045	329	.008
	50 60	087 079	181	099 089	162	132 118	119	192 152	100	241 186	080	200	
	70	079	101	009	162	055	119 059	152	100 050	186	080 045	145 087	039 022
	80	010	025	.002	010	.011	.001	009	003	040	001	021	.015
	90	.127	.046	.136	.062	.142	.082	.137	.065	.119	.053	.123	.055
95	0	.118		.374		.659		.693		.619		.490	
	5 10	.134	250	.099 012	162	10h 139	039	311	.045	958		-1.271	-55
	20	079	159	012	102	139	039	200	-,116	652 218	075	-1.138 479	.165 029
	30		211		203		- 119	211	125		102		080
	40												
	50	119		-,112		111		138		165		144	
	60	090 046	104	072 027	089	065 010	071	080	068	117	081	118	068
	86	012	039	.030	029	010	009	019	012	055	024	072 028	025
	90	.036	.062	.005	.000	.061	.096	.000	.088	1 :066	.062	020	.046

(h) M,0.86.

Per-							Angle of a	trak deer					
cent	Per-	h	<u> </u>	T .	-2		0		2		4		6
Seni-	chord	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover surface	Upper eurface	Lower surface	Upper surface	Lower surface
12.5	0 5 10 20 30	-0.020 .262 .194 .096	 -0.304 301 263	0.347 .140 .089 0 060	-0.199 230 210	0.636 .029 .001 063 120	-0.058 104 100	0.747 088 092 140 190	0.033 038 036	0.782 267 257 275 318	0.162 .069 .050	0.752 523 457 412 440	0.310 .190 .160
	19 8.8 P. 80 8	015 059 072 079 054	329 367 322 220 102	099 132 143 148 116 066	267 300 260 210 122	150 180 184 178 143 065	162 183 186 143 065	217 247 247 232 172 088	152 153 118 065	337 366 374 342 240 122	025 087 100 078 032	440 472 487 500 367 142	.073 001 025 012 .013
ÿ	0 2 10 20 30 40 50 60 70 80 90	.494 .211 .136 .008 027 078 114 078 043 .002		.678 .088 .043 067 112 179 170 130 085 026	360 350 352 364 335 260 165 080 0	.720 079 068 160 198 229 220 176 112 048		.644 237 178 258 260 278 278 208 135 053	068 122 160 186 205 167 102 060	.410 625 355 402 430 442 370 238 152 049	.100 .008 040 087 120 100 079 020	147 -1.150 864 700 540 583 622 373 102 050	 210 100 .032 025 060 062 035 .002
33	0 5 10 20 30 40 50 60 70 80	.232 052 .082 018 051 079 093 062 040 .049	731 412 350 204 103	.498 .101 .001 069 114 150 111 080 020	-398 -340 -319 -319 -209 -121 -209	.662 .069 131 170 193 208 202 150 100 021	-193 -202 -202 -220 160 -100	.680 .017 269 271 260 269 248 183 120 030		.571 062 558 412 387 324 263 199 115 030	.221 .025 022 071 028	.356 261 1014 .913 790 530 279 160 100 027	.110 .119 .050 032 0
75	0 20 20 30 40 50 60 70 80	163 .170 .065 002 040 070 078 072 043 .003 .139		.162 .109 .029 054 095 129 121 112 078 019		.541 072 108 158 171 189 163 150 078 014 132	-170 -180 -202 -189 145 -082 -012	.702 255 236 252 245 238 160 089 016 .130	020 081 125 133 119 069 005	.708 784 589 415 312 292 227 169 095 018	.179 .038 029 054 080 045 .004	.631 -1.192 -1.082 952 702 378 238 141 061 005	.239 .120 .050 .007 .007 .042 .021 .018
95	0 5 10 20 30 40 50 60 70 80	.1k0 .120 .029 089 		.10 .060 050 132 140 095 030 .018		.640 108 161 180 145 090 027 .031	069 176 170 	270 270 210 140 082 020 .040	.021 140 140 140 070 010 .050	.645 778 604 198 154 100 038 .030	.102 101 120 070 025 .022	.519 -1.181 -1.098 605 120 099 099 012	.160 052 101

TABLE VI.- CONTINUED

(i) M,0.88.

		·			_	Angl	e of attack	dogrees					
Per-	Per-					-		T 2		١		6	
Seni- span	ebord	Cyper surface	Lower	Upper surface	Lower murface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface
12.5	•	0.032		0.347		0,624		0.760		0.800		0.760	
		.273	-0.282	.177	-0.180	.058 .028	-0.050	-,102 -,107	0.060	258	0.198	- 110	0.300
	10 20	.205	-296	.042	210	045	106	150	013	270	.097	400	.187
	30	,oko	-,265	022	195	-,102	102	202	027	309	.079	427 435	.152 .068
	io.	008	318	-,06k	252	136 172	168	230 270	092	326 365	.002	462	.000
	50 60	049	379	100 115	31%	180	220	284	152	388	068	LB 0	017
	70	-,078	390	-,122	307	177	210	274	154	402	060 060	508	040
	åo so	060	289	097 089	211	140 065	157	-,219 -,100	120 054	335 130	-,000	512 280	002
35	0	.530		.655		,152		.635		.400		.120	
37	1 5	.218		,100		064	- 7.7	274	07B	7k3	.130	-1.258 998	.082
	10	.018	440	.050 065	384 382	-,070 -,168	196 225	200	145	433	.035	-,822	-018
	20 30	025	427	-,110	393	203	250	329	-,176	458	022	650	050
	40	076	465	158	429	243	280	358	218	~.500	072 100	700 772	108 150
	50	110	515	180 140	428	240	280	337 233	235 233	530 528	088	750	-,120
	60 70	090	140	097	170	-,133	137	134	133	-,150	040	374	150
	l ào	.002	-,040	035	085	042	060	080	080	084	0.099	170 077	113 077
	90	.040	.028	.012	010	.010	.012_	022	022	022		.410	
55	0 5	.300	===	. 190	===	.661		1!					
	10	,101	708	.034	600	130	222	307	038 100	-,689 -,500	.110	-1.020 909	.210
	20	033	422	-,040 -,086	379 360	173 210	211 250	-,320 -,318	136	505	041	-,795	,040
	30	072		120		-,220		298		481		690	
	50	081		130		215	160	270	-,131	301 -,207	088	571	-,040
	60 70	059	181	092	200 108	180	109	181	070	-,131	041	121	005
	ao	.022		.000		030		150		050		015	.165
	- 90	.065	.050	.065	-050_	,050	.011	.723	.130	.720		.667	
75	0	107		.132		.521 059	===	352		864		-1.139	
	16	109	771	.042	438	094	182	259	.001	762	.152	-1.032	.230
	20	.012	-,555	041	333 312	153 168	199 222	288	062	607	.050 015	970 878	.040
	30	069	-,268	116	273	192	-,209	265	122	-,265	040	468	.000
	80	086		120		168		210		- 205	072	288 210	042
		069	160	10j	177	148 078	160 083	-,162 -,088	-,119 -,069	150 078	040	005	-,020
	70 80	039	081 006	005	019	002	007	-,011	.009	011	.015	.015	,020
) % _	.148	.069	.130	.057	,132	.060	.139	.062	.142	.069	.140	.070
95	0	.200		.389	1 :::	092		.701 -,362		.650 841	:::	-1.110	
	10	.050	451	-,022	182	- 155	072	310	.033	802	.119	-1.073	.160
	20	073	068	120	160	180	180	219	146	337	090	916	060 131
	30 40	===	-,123	===	195		180		-,140				
	50	099	::::	-,122		140	1	141		137		085	l
	60	059	072	085	078	080	075	082	080	030	070 010	079	078 034
	10	008	019	015	005	014	009	021	.052	.025	.049	020	.025
	80	080	.089	.080	.000	.00	.099	.090	.099	.076	.079	.026	.055

(j) M,O.90.

Per-	Per-						Angle of at						
test	cent				~		0		2		4		6
Seni Fpan	chord	Upper surface	Lover surface	Upper	Lover	Opper surface	Lower	Upper	Lover	Surface	Lover	Dipper	Lover
12.5	_ 。	0.080		0.415		0.669		0.777		0.810		0.775	
		.280		.150		.040	7.7.	098	7.7.7	270		479	1 :
	10	.209	-0.272	,100	-0.162	055	-0,029	099	001	250	.102	420	0.31
	20	.107	290 259	045	200	055	092	190	-,013	296	.080	409	1 1
	30	008	310	085	250	157	160	-,228	087	3i3	.007	- 115	.07
	1 50	057		-,130		190		273		348		450	
	60	075	376	148	325	510	232	~,300	119	378	075	468	01
	70	~.068	398	158	345	220	240 189	318	162 125	408 419	092 078	192 518	0
	.êo	075	390 215	132	313	082	082	134	057	238	030	424	02
35		-567		.694		-735		.648		.440		.250	
	5	.212	- 7.2	.080	-,320	082	166	276	013	710 410	.119	-1.022	
	10	.136	388 418	080	330	182	210	295	088	412	. χ	716	
	20 30	032	-,410	128	349	226	-,242	335	-,132	437	-,032	493	.01
	1 🕉	065	443	-,178	-,400	275	268	386	172	486	087	540	01
	50	122	520	200	168	280	308	123	200	548	118	610	06
	60	-,100	~-,508	150	38A	218	223 118	-,322 -,140	160 140	517 260	107	620 560	-,00
	70 80	055	515	090	110	120 018	042	042	042	-,070	015	143	5,00
	90	.040	.022	.035	.038	-014	.030	.014	.015	.015	.038	020	.04
"	0	.356	===	.311	T ===	.678		,688 -,007	===	.600 -,107	===	225	==
	10	,100	670	010	381	150	198	319	023	622	.127	920	.21
	20	.000	-,408	~.080	389	191	221	342	-,090	473	.040	845	.10
	30	040	-,160	-,126	403	220	-,241	365	-,120	460	010	781	.04
	140	080		150 160		227		358		500 500		710 625	
	%	058 058	-,158	117	191	150	170	-,170	+.125	185	060	446	03
	70	038	062	079	113	-,100	089	100	060	075	015	148	.00
	Bo .	.027		018		-,038		015		.002		038	
	90	.070	.070	.040	.040	.040	045	,0A3	.040	.050	.076	.040	.07
75	1 0	03k		.220	===	-,573 -,084	===	.732 421		.728 840		-1.055	==
	10	,192 ,100	-,724	.09A 015	125	118	-,170	287	.027	-,710	.144	951	.22
	20	.007	694	070	349	171	189	315	050	622	.046	901	.11
	30	054	435	-,113	338	185	220	282	~.099	535	016	857	.01
	i io	075	325	147	285	201	209	267	-,110	392 178	041	807 329	.00
	50	082	122	141 131	188	178 161	153	211 159	108	108	075	279	03
		073	056	-,080	099	060	080	070	~.058	050	039	190	0
	70 80	.010	.010	019	018	-,009	008	.002	.017	.015	.017	048 -163	.0.
95	90	.232	.080	.118	068	.662		.713		.652		.581	
	;	137	l	.062		100		405		791		988	
	10	.037	430	050	189	171	060	339	.050 165	4776	-,105	-,988 -,921	0
	20	111	310	162	-,241	218	211 182	277	150	591	113		1
	30 No	:::	030				102	===					
	50	099	1 :::	-,134		-,131		129		-,102		057	
	60	065	066	-,091	071	065	072	069	~,072	080	060	032	00
1	70	012	009	~.020	009	008	~,016	.060	.060	021 .030	.009	015	0
	80	.040	.052	.030	.096	.055	.059	.000	.105	.080	.089	.009	
		<u>92</u>			XXX	<u> </u>							

TABLE VI.- CONCLUDED

(k) M,0.92.

Per-	1 -	1				Ang	le of attact	t, degrees					
cent Seni-	Per-	_	4		-Q		,		5				6
span	chord	Upper	Tover surface	Upper surface	Lover surface	Upper surface	Durface	Upper ourface	Lower	Upper surface	Lower	Dipper Upper	Lower
12.5	0	0.172		0.419	-,	0.664		0.784		0.815		0.815	
	10	.258	-0,209	.160	-0.166	.012	-0.038	082 088	0.082	260 239	0.207	352 352	0.312
	20	.096	-,239	.020	200	059	091	÷,135	,002	289	.100	330	.195
	30	.028	219	045	190	115	102	187	012	290	.078	360	.165
	50	015 070	267	089 136	248	158 -,205	-,169	217 260	082	308 348	.002	368 -,102	.079
	l ã	050	338	165	327	229	252	298	165	374	~,090	426	020
	70	110	- 362	182	~.355	251	÷.277	320	182	-,102	110	450	~.053
	80	104	36A 297	180 106	357 280	254 150	262 140	-,340 -,227	132 075	128 360	098 066	478 437	-,060 -,043
35	0	-5%		.690		-,174		.670 268		.468		.321	
	120	.028	347	.067	312.	.370 258	158	-,200	022	~.715 448	.115	930 720	,198
	20	038	378	070	-,3k2	-,283	207	290	~.102	401	.018	-,600	.082
	20	~.066	368	150	362	268	250	328	150	127	010	-, 678	.011
	100	130 180	102	212 248	-,413	356	-,303 -,369	-,445	200	-,540	-,142	522 552	050
	fo	150	-,490	190	508	2-0	ري. (25 –	123	182	535	130	604	-,109
	70	046	410	120	3:6	-,162 -,027	132	268	120 049	523 158	080 026	-,620	095
	80 Ø	030 .018	077	033	-,005	-,027	027	050	019	010	026	314	050
55	T :	.122		.551		.681	:::	.689 -,030	:::	.614 110		.510 190	
	10	021	522	-,011	407	169	221	329	048	645	,100	850	.153
	20	072	377	105	18)	221	259	359	119	511	.010	775	.050
	30	102	-,419	1%	420	2(~)	277	392	150	-,469	048	7,9	019
	50	136	1	172 182		281		126	1 222	519 588		632	
	10	0,5	391	131	-, 351	-,185	-,183	200	141	541	09B	650	098
	70	054	-,108	0.0	106	101	10)	100	075	160 036	010	321	049
	80	.010	.065	02j	026	033	.032	.035	.049	036	.063	-,630 -,042	.040
75	0 5	.019		.2°52		.571 100	- <u></u> -	.720	:::	.715 752		.699 942	
	16	0,0	-,532	.015	452	137	212	319	007	700	.119	856	.174
	20	00	~-,550	071	430	1:0	219	370	080	648	.025	815	.069
	100	110	411	110	-, 181	207	248	- 359 - 341	152	595 532	039 069	782 761	002 045
	1 70	-,101		156		1-A		230		673		632	
	10	-,088	100	1 10	199	-,170	~.175	168 089	132 074	149	~.097	316	082
	/O 80	041	002	070 80n	072	00	-,001	009	019	.028 (033	059	209 072	051
	1.0	.178	.110	.157	.00,	.1(1	.081	,142	.063	.159	.079	.160	.068
95	0	.00	1 :::	.448	===	016	:::	.718 389		.671 691		.628 810	===
	10	007,	128	052	250	178	074	109	.046	768	.112	~.ė,x	.146
	20	156	3B1	1,0	312	270	26/1	372	189	721	-,128	850	-,100
	140		:00		189	:::	-,20:)		170		205		196
	۰۵	087		12f		116		+,129		02"		116	
	1.0	045	046	07',	081	075	076	049	070	019	060	021	101
	80	.001	.019	001	015	-,010	-,007	001	,000	,002	.008	.002	021
	1 %	.0,0	.070	180.	.100	.100	.005	.055	(بری. 100.	.040	.065	.030	.035

(1) M,0.94.

	P-r-	T				Anyti	r of attack	, degrees					
Pr-r-	o~nt		4		-			2			۱.		6
femi- span	chord	Upp-r	iover ourface	Upp-r runt sen	Lover surface	Upper rurfser	Lower Further	Upper rurinor	Lower	Upper	Lover	Upper surface	Lower surface
12.5	0	0.1'71		0.4-1		0./8/		0.788		0,828		0,818	
	10	.786	-0.1/7	.164	-0.193	.012	-0.012	071	0.085	232	0.208	-, 35A -, 360	0,325
	20	1 118	22	, cx+B	-,184	041	075	127	,010	-,230	.102	-, 332	,203
	10	.07,0	701	040	173	075	07L	168	08/	270	.076	3(40	.168
	10	004	250	088	210	16	147	206	088	268		367 402	.079
	190	077	323	-176	110	211	233	288	181	360	102	424	-,032
	70	102	148	704	1.10	242	266	112	210	3'.0	138	-,152	070
	80	117	353	215	98	545	241	368	220 180	114	118	480	080
- 35	0	081	07	-,17		.79	24)		-,150				
ית	3	117		.073		0/2		-273		646		878	
	10	.122	-, 378	.014	2.6	077	151 200	18h 275	038 118	12	_,100 _,007	-,688	.218
	20	002	355	180	-, 306	210	-,240	118	170	415	-:07	-,117	.022
	č	170	380	220	-: :76	5.4	00	-, 568	235	455	140 204	490	050
	',0	170	- 451	17'>	178	150	378	152 185	3D3 517	529	202	578 576	128
	1 %	153	-,4/0	-,220	-,148	110	-, 142	400	210	544	110	275	-,109
	80	010	-170	055	278	165	118	-:006	055	- 360	070	-:122 -:170	070
22		.451		.582 .078		.(70		.701		631		-:376	===
	10	.037	512	078	372	178	-,221	.003	065	580	.054	810	,145
1	20	019	369	117	163	~.218	264	315	140	480	039	749	.039
	30	00	410	~.200	400	2.40	510	-,358	195	450	100	740	040
	40 50	128		248 248		- 310	:::	-,400 -,473		500 576	===	700	1 ===
	60	101	-,501	136	561	289	340	-, 140	143	592	1k2	620	146
	70	060	249	082	270	075	080	-,250	050	-,118	080	(A) 251	095
	80 90	.00k	.039	021 .039	.041	.018	.069	.073	.075	015	.023	-,120	029
75	0	.115		925		-,121	===	- 310 - 312	===	-:53	===	859	===
1	10	.068	548	032	-,401	~.152	218	280	-,013	612	.080	780	.164
	20	022	-,501	117	397	222	250	349	110	569	012	750	.055
	30	081	- 18	175	-,450	252	259	372	156 148	540	080 103	729 738	020
	10 50	105	9	164		~.213		388		539		700	
	60	080	268	153	275	127	153	249	140	479	131	50	112
	70	042	038	077	062	075	079	038 ,029	080	~,118 ~,018	085	326	090 027
	80	.019	.039	029	.090	.178	.002	,173	.048	.158	.052	.134	.030
95	•	-367		.189		.671		.726		.679		,640	
	10	.089	321	061	209	100	062	306 377	029	560 700	.099	632	.158
	50	131	369	199	325	280	157	396	199	-,672	152	798	070
1	30		-,474		480		326		280		262		200
	40 50	145		160		062		028		080		-,416	
	50 60	006	.011	038	018	060	~.049	020	039	.021	049	170	091
	70	.032	.041	,007	.030	.000	029	.026	.015	.040	.010	071	050 .050
	80	.080	.091	.051	.120	.064	.081	.087	.025	005	.000	.069	.010
			1440	, ,,,,,,		,,,,,				,	=		~

TABLE VII.— PRESSURE COEFFICIENTS ON A WING HAVING A SWEEPBACK ANGLE OF 45° AND AN ASPECT RATIO OF 6 IN COMBINATION WITH A FUSELAGE.

(a) M,0.40.

							Angle of at	tack, degre	***				
Per-	Nor-	_	<u> </u>		2		0	T	2		·	1	5
seni- spen	tent chord	Opper surface	Lower surface	Upper surface	Lower surface	Opper surface	Lower surface	Upper surface	Lowr	Upper	Lower surface	Upper surface	Lower ourface
12.5	۰												
	. 5	0.216		0.130		-0.019		-0.167		-0.311		-0.555	
	20	.148		.070		039		~141		234		~400	===
	l 💥	.026	0.239	٥	-0.156	⊸,084	-0.068	151	-0.038	176	0.026	297	0.090
	10	010	232	044	156	097	077	160	064	176	006	~.267	.052
	60	039 045	206	06A 060	136	126 116	116	167 151	-,071	176	038	271 239	.019
	70	043	174	→.06 0	140	~.094	106	135	071	167	045	206	010
1	8o	029	142	038	098	068	08A 0A2	- 103	061	119	035	148 084	.003
	90	013	077	006	054	035		054	013	071	~.006		.019
35	3	.213		.107	:::	077		266		481		658	:::
	lú		377		251		100		.026		.122		.213
	20	.087	297	.003	203	097	~100	~.199	006	279	.058	448	.068
	30	011	265	029 057	187	106 116	126	183 167	054	-,247	003	374	.000
	l \$6	023	206	060	~.156	110	129	160	071	192	038	255	.003
	60	02)	171	051	124	097	100	119	071 038	141 103	038 022	190	,003
	70 Bo	013 006	110	→.032 .003	000	065 010	000	077 038	030	045	022	139 077	.035
	90	.032		.035		.026		.019		.010		019	
55	0	210		.257		.432	1	.106		583		-1.045	
	10		~345		251		126		.026		.096	:::	.197
	20	1	303		- 187	1	132		006		.058		.148
	30		235		156		132		-,029		,.026		.087
	40 50	010 019		003 038		100 100		160 135		-,199 -,167		274 223	
	66	013		032		075		109		~.135		174	
	70 80	013	068	022	070 006	042	068 003	071 010	032	077 032	006 .026	116 061	.013
	90 90	.013	039 .016	.035	006	.029	.032	026	.032	.026	.042	013	.035
75													
"	,	.213		.124		052		256		→, 391		594	
	20		335 271		219 . 187		094		.058	:::	.138 .058	:::	.219
	30	-019	181	032	-, 124	126	068	167	003	-,215	.032	~.332	.oB4
	1 4o	010	206	029	-,156	097	100	160	~038	196	003	271	.045
	50 60	016	142	022	092	09A 06B	068	135 096	038	~167 ~119	~022	223 174	.003
	76	013	-077	.003	057	035	052	064	032	071	-,006	110	.003
	8o	.245		.162		.103		.064		.058		.026	
	90	.052	.019	.060	.035	.055	.029	.042	.026 -	.032	.026	010	.026
95	9	432		.098 .098		068		.378 ~231		.0A2 365		110 174	
	ம்	.084	290	.035	206	~.090	090	199	.010	269	.077	-,458 [.145
	50	006	223	025	180	100	116	135	~051	199	019	- 352	.039
	30	052	148	057	122	094	091	119	- 074	135	028	190	029
	50	015	123	057	103	077	087	087	068	- 133	061	148	~.051
	60	012	090	032	080	045	068	054	061	071	058	110	055
	70 80	013		.060		003 .045		006		022 .032		077	
	8 8	.020	.035	.00	.042		.042	.0.2	.039	20.5	.035		.013

Per-							Angle of a	ttack, degr	***				
eent.	Per-	Е	3	1	Δ		2	1			16		8
opan omi-	cent chord	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Opper surface	Lower surface	Oppor surface	Lower	Upper surface	Lower curface
12.5	9	-0.825	===	-0.818		-1.172	:	-3.058	===	-3.58¥	===	→.706	===
	10 20	573 389	0,166	722	0.240	860	0.289	977 659	0.347	-1.132	===	835	0.139
	30 30 50	- 322	.127	426	.179	591 523 461	.224	571 500	.269	610	0.394 .326	706 626	358
	66	~.268 ~.229	700. Beo.	335 261	.109	383 328	.113	-,125 -,357	.185 .130	358	.229 .181	552 174	.261
	80 90	166 102	.032 .032	211 115	.077	256 159	.065	263 166	.127 .084	267 184	.148	- 352 - 529	.165 .132
35	9 5	806	===	-1.115		-1.188		-1.266	===	-1.126		-1.158	
	20	701	.287 .191	-1.220	.36A .268	-1.393	.393	-1.331	. 145 745.	-1.223	.471 .390	-1.112	.494
	30 No	-,643 -,525	.137	-1.297 -1.169	.179	-1.448 -1.393	.224	-1.390 -1.367	.256	-1.252 -1.239	.294	-1.126 -1.112	.326
	50 60 70	369 261	.057 .051	786 304	.093	-1.182 821 122	.127 .091 .068	-1.266 -1.068 815	.133 .100 .068	-1.197 -1.077 939	.165 .116 .074	-1.129 -1.061 971	.181 .116 .068
	86	169 102 035	.032	051 .013	.070	130 001	.078	555 305	.068	771 390	.068	868 119	.019
55	0	899		815		665		649	:::	616		616	===
	10 20	:::	.2 0 0		.332		.068	:::	.386 .292	===	.423 .326	:::	.139
	30 40	-, 452	.137	604	.173	620	.175	614	.198	577	.229	577	.261
	50 60	399 316		626 629		646 652 646	036	620 627 640	036	594 610 610	029	584 610 594	029
	70 80 90	223 150 073	032	594 530 466	.013 019 083	620 581	081 192	617 588	100 195	577 552	087 184	561 539	077 184
77	. 0	516				351		360	===	352	:::	352	===
	10 20		.263 .185		.300		.305	===	.347		.384 .268	====	. 406 . 294
	30 40	385 318	.121 .073	147 144	.058	328 328	.127	360 367	.133 .078	368 381	.171	-377	.132
	50 60	267 229	.025	275	016	334 328	036	367 360	036 068	377 358	.003	381 358	.010
	70 80 90	166 006	.025	252 099 21	029	328 172 295	062	360 231 325	000 133	352 255 319	126	352 261 323	126
95	9	223		117 190		133 263		133 201		206 206	===	287 221	===
	10 20	-,548 -,506	.199 .071	403 396	.203	295 279	.236 .102	237 231	.241	239 239	.267 .138	255 255	.294 .161
	30 No	-404	026	339	023	260	019	231	023	229	003	- 255	.006
	50 60	325 576	010 016	329 275	055 061	260 247	051 077	231 231	058 119	229 223	051 080	225 255	032 087
	70 80 90	316 382		236 131		231 182		196 16±	111	219 190	17.7	197	111
	90		.006		048		083		106		116	1	-,126

TABLE VII. - CONTINUED

(ъ) м,0.60.

									Angle of	Altack, d	erres.						
Per-	Per-	<u> </u>							2	1			5		3	1	0
cent send-	chord	Upper surface	Lower surface	Upper surface	Lower surface	Opper surface	Lower surface	Opper surface	Lower surface	Opper surface	Lower surface	Opper surface	Lower surface	Upper surface	Lower surface	Opper surface	Lower surface
12.5	0	0.228	===	0.117	::::	0.005		-0.159	===	-0.330		-0.580	===	-0.811		-1.654	:::
	10	.143		.062		019		138	===	261		438		581		730	===
	20 30	.023	-0.248	031	-0.173	081	-0.119	160	-0.053	- 241	0.011	342 326	0.093	419 309	0.1% .090	522 473	0.229
- 1	50	015 049	241	062	185	112 130	139	179 189	078	246 246	021	322		- 369		440	
	60	~.059	216	098	169	125	~.135 ~.132	177 160	098 109	229 200	057 071	209 247	.021	332 266	.033	397 329	.058
1	70 80	061 041	206 146	093 071	160 112	118 05	100	121	072	155	050	192	017	215	.009	249 153	.050
35	90	022	086	-,010	063	,049	0%0	072	-,040	098	022	116	001				
"	9	.209	===	.072		071		274		- 470		670		705	.260	-1.020	-339
- 1	10 20	.039	386 290	032	-,261 -,217	112	138 129	202	065	282	.072	-,492	.223	598	.176	-1.000	.250
	30	002	258	070	219	129	151	195 187	080	218	.012	408 342	.067	431	.099	-1.049	.166
- 1	140 50	032	213	072 089	181	131	145	170	101	~,166	022	271	0	366	.021	~.858	.072
	60	039	159	- 074	141 101	105 071	109 075	132 093	087 059	~ 142 095	023 003	210 144	0.007	2 00	.008	605 300	.055
	№	.005	040	~.015	o4o	037	020	045	014	04ó	.048	088	.030	159 063	.036	095	.060
	90	.037		.023		.010		.002		.618		620		.720		.670	
27	9	.030		.340	===	.267		.312	l								-
	10 20	=== '	281 298		252	:::	025		.078		.210		.203		.242		.310 .212
	30		240		~.188	!!	072	- 238	-,002	310	.064	318	.062	372	.092	-,377	.112
- 1	10 50	010		070		179		205		- 250		250		322		- 352	
- 1	60 70	030 015	100	054	092	130 100	058	161 108	042	199 132	014	195 132	010	265 195	.008	342 330	l
- 1	8o	.015	032	0	010	040	015	050	0.021	075 030	.026 .035	078 032	.018	126 076	.028	320 274	033
75	90	.032	.015	.022	.020	0	.020			030	- 1032	-1034					
''1	9	.197		.090		030		206	980.	129	.122	618	.220	592	.257	542	.290
- 1	20	1	342 279		220	===	117 116		-,020	===	.049		.135		.160		.180
- 1	30	022	~.195 224	040	136 169	093 102	087 132	159 150	020 060	230	025	340 274	.088 .032	410 340	.050	498 490	.118
- 1	50	047		079		115		140	iI	181	038	225		300 238		443 360	010
- 1	60 70	020	143 098	047 030	072	070 041	095 058	096 065	052	130 080	020	113	.002	184	.005	200	029
- 1	80 90	.200		.135		.087		.015	.045	002	.023	040	.042	070 055	.022	167 150	030
95	- 90	-,242	.010	.042		.0-0		.443		.196		.020		069		240	
	•	.155	263	.060	192	082	-110	220 182	.001	-, 390 -, 282	.091	512 163	.160	487 478	.186	580	
ŀ	30 20	008	202	060	167	103	125	160	071	210	010	349	.033	103	.059	540	.220
ŀ	30 40	060	128	087	-,128	104	094	-,123	070	140	056	186	03h	253	029	450	020
	50	~.052	102	077	- 098	090	078 050	- 100	~.064	102 055	055	149 105	040 027	215 178	034 038	402 337	0% 05€
	70	038 003	067	045 015		-,020		020		014		068		134		280	
	80 90	.165	.062	.086	.063	.086	.073	.086	.072	.048	.062	.014	.028	025	.018	145	.008
	~	تت	.002	ستشتا	.003	لتتنا	.015										

(c) M,0.70.

		 -													
Per-	Per-	<u> </u>						nels of at		1	,	- 6	5		3
span	cent chord	Upper	Lower	Upper	Lover	Opper surface	Lower surface	Upper surface	Lower surface	Opper surface	Lover	Upper surface	Lower surface	Upper surface	Lower surface
12.5	0					7.7.7		-0.125		-0.301		-0.509	===	-0.852	===
- 1	10	0.225	100	0.145 .090		-0.012 035		127		245		401		624	l l
	50										0.019	337	0.088	350	0.162
	30 40	.020 -	-0.239	017 059	-0.208 216	101 132	-0.120 141	160 160	-0.060 089	250	020	330	.038	428	.106
	50	020 051	239	082		153		192		257		327	009	409 ,367	.042
	60	06k	220 205	100 099	201 193	160 153	159 150	192 172	109 112	245 213	055 069	302 261	029	318	.015
	70 80	067 045	151	079	142	112	111	130	087	-,166	~.051	-,199	019 .002	239 149	.020
	90	020	062	012	078	062	060	075	042	092	020	120	.002	149	.020
35	0			.109		099		263	===	508	l	678		771	
	10	.183	380		303		136		022		.100	484	.185	652	.259
	20	.021	~. 310	012	242	130 149	142	205 200	059 092	309 261	022	421	.038	586	.073
	1 %	050	279	058 076	239	155		196		256		356	029	527	
	l 50	072	229	080	204	147	158 128	178	113 091	222 170	070 061	-,266 -,221	.030	353	001
	60 70	061 041	180	071 050	159 102	119 082	⊸.082	104	065	126	040	168	020	268	0.022
	ào	006	059	013	048	032 .016	008	046 .005	014	066 003	001	101 039	.017	110	.022
	90	.016		.030		.468		.343		147		413		631	
55	3	.090		.290										===	.245
	10		200		-, 310 -, 244		170 138		030 053		.089		.189	===	155
	20 30		273		210	===	139		075		.009		.062	357	.099
	140	÷.030		060		138	1 ::::	170 160	===	229 190	1 ::::	300	1 ===	327	1 ===
	50 60	052	===	077		135 109		127		139		180		272	009
	70	020	098	040	103	072	087	099	057 010	090 022	022	120	.001 .038	210 150	009
	80 90	.010	033	.003	,040 ,010	-,023 .020	020	.015	.020	.029	.040	0	.047	097	0
75	0							T		421	===	- 592	122	625	
		.171	303	.115	270	072	118	220	002		.100		.191		.240
	20		267		228		130		044 043	-,240	.020	339	.063	443	.122
	30	002	175	031 05Å	160 197	119 130	102	178 168	090	-,216	033	-,285	.002	381	.030
	1 10	032	200	064		122		157		184	042	230 172	029	333 273	018
i i	60	030	~.133	0\2 030	125	092 063	107 069	118 074	060	135 090	026	118	016	217	027
	200	015	075	.020		004		012		020	.026	038	.022	096	001
_	90	.050	.025	.047	.020	.025	.011	.020 .46k	.021	.090		.063		069	
99	3	118		.122		.450 086		- 227		-,648		560		527	.122
l	10	.057	262	.009	252	120	138	197	037	350 260	.018 082	- 199 - 390	052	520 460	012
l	80	040	210	068	210	140	152	173	098					1	
l	30 40	080	140	096	148	122	126	138	103	138 168	130 131	242 202	130 131	302	097 105
l	20	- 081	112	090 067	117	107	102	112	090 067	125	120	160	125	222	÷.109
l	70	053		018		027		025		000	===	120 040	1 ===	189	
l	70 80	.078	.055	.032	.000	.026	.056	.030	.049	020	008	040	036		042
	90	1	.077		1 .050		.1				-	_	_	NAC	

TABLE VII. - CONTINUED

(d) M,0.75.

-							· .	nale of a	A-ab das						
Per-	Per					$\overline{}$				i					۸
Send-	eent chord	Upper	Lover	Upper surface	Lover	Upper	Lower	Opper surface	Lover	Upper surface	Lower	Upper surface	Lover	Upper	Lower
12.5	•														
4.,	١ ,	0.242		0.132		-0.003		-0.139		-0.321		-0.179		-0.699	
	1ó	.160		.077		031		132		268		38i		561	
	50										7.7.7				0.168
	30	.031	-0.249	023	-0.188	098	-0.120 146	167 191	-0.039 072	258 269	0.026 018	321 330	0.091 .045	437 419	.112
	1 30	013 049	-,255	065 090	200	130 132	146	208	072	276		320	,	396	
i	50	059	231	098	200	157	~.150	200	100	261	060	294	co8	- 365	.042
	70	067	215	099	183	147	150	181	107	236	071	~.261	029	304	011
		049	168	076	141	114	119	140	⊸.06 6	179	055	199	018	-,230	.020
	90	022	089	045	083_	067	065	083	036	106	021_	118	.005	140_	.030
35	9	.198	===	.078		069		291	1 ::::	517	===	700		728	
	ا نأه ا	.190	409		269		132		.008	-12-1	.118		.191		.24;
1	1 20 20	.036	-,322	038	246	126	148	219	039	341	.050	481	.108	631	.166
	1 20	015	290	071	~.239	142	163	208	073	292	017	407	.043	539	.092
l		052		098	204	157	179	201 181	100	268 232	061	3k1 265	017	462 400	.008
1	50	061 058	238 178	100 081	155	139 106	124	138	076	176	053	214	019	322	.000
1	70	038	118	060	110	070	082	095	050	123	033	150	0	-,250	.005
1	ão .	005	0%	018	OA2	027	030	0k2	018	055	.009	080	.025	180	.023
	90	.030		.015		.029		.028		.009	~	018		106	
99		.130		.381		.480		.302		200		392		~.632	
l	,		7		200		150		012		.062	1:::	.126	1111	.182
l	10	1 :::	-,300 301		222		140	1	012		008		.050		.100
1	30	1	252		200		-,140		- 069		040		001		.040
i	140	030		071		138		190		297		351		462	
	50	~.050		085		137		170		262		~.290	1 ====	395 330	
l	60	- 035	102	070 046	099	105	080	140	060	212 152	080	237	062	260	~,066
1	70	020	032	008	030	020	018	032	009	091	032	110	012	184	040
1	90	.037	.020	.029	:025	.012	.024	.017	.036	037	018	055	012	123	025
73	0														
	5	.167		.079		072		249	.024	463	.12	609	.210	613	.234
	20		337 280		247 211		110 120		023	:::	.053	1	.105		.144
	10		196	060	158	123	090	187	024	267	.020	326	.07.7	430	.092
	40	028	221	072	194	130	140	178	072	238	030	270	-007	~.359	.023
	50	OA4		082		120		15		201	016	220	022	302	014
ļ.	60	027	138	060 040	126 060	092 062	113 070	100	060	149 093	022	163	010	196	012
1	70 80	017	080	020	000	0.002	070	009		022	022	029		096	
1	90	.000	.028	.033	.013	.031	.035	.037	.040	.023	.029	.001	026	072	.002
95		041		.275		.477		.467		.258		.160		.042	
1"	1 5	.162		.068		086	- 7.2	-,268		478		- 567	1	512 481	.171
i	10	.076	299	002	216	108	108 139	210 180	002	345 248	.090 022	478	.133	390	650.
į.	20	021	221	060	190	133	139	100	000		022	1	1		
i i	160	063	141	090	130	-,110	110	130	093	170	070	180	052	253	058
l	50	064	110	080	110	097	~.100	10k	080	132	070	143	062	203	065
l	60	037	070	050	072	070	072	060	075	077	059	090	050	158 131	058
í	70 80	007		008		0.054		012	===	035		050	1	131	
1	90	.131	.072	.0/3	.068		.068	.0.0	.060		.051		.042		.015
ш	_~	1	.0/2		1								1		

(e) M,0.80.

Per-	Per-						Ang	le of atter	k, de rece						
cent	cent	-	7		e		,	-	2				6		7
Semi- span	chord	Upper surface	Lover	Upper surface	Lower surface	Upper surface	Lover surface	Upper eurface	Lower surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower ourface
12.5	0							77.7		-0.202	:::	-0.159	===	-0.607	
	10	0.221		0.151		0.022 008		-0.130 -,121		282		-,380		451	
	20	-143		.093						:					
	36	.022	-0.228	012	-0,195	085	-0.108	160	-0.041	240	0.012 038	340	0.108	417	0.142 .088
	1 40	022	229	059 088	212	125 150	140	195 220	080	265	030	359	.058	~,412	
	%	061	-,231	106	-,200	160	-,151	-,216	110	- 27	oAo	-,332	001	373	.02)
	170	061	221	107	217	146	157	200	128	259	100	-,250	028	320	~,005
	80	057	168	074	146	-,115	118	159	088	192	071 031	-,218	015	239	.009
	90	033	090	043	~,080	061	067_	090	041	117		128	- 012	155	
35	0			.086		078	::::	279		127		760		731	
	10	.159	362	.000	30k	010	130		-,005		.083		.190		.238
	20	.002	-,310	~.042	259	-,126	143	219	050	324	-019	529	.105	613	.150
	30	030	281	-,080	240	142	-,162	217	089	300	039	-,442 368	.040	504 432	.073
	10	071 083	232	109 108	-,210	153 141	-,162	210 180	109	-,236	080	-,292	029	358	,007
	50 60	003	-,172	091	160	105	-,119	140	~,086	181	071	221	029	278	.0
	70	049	-,121	068	110	049	080	095	- 052	130	036	156	007	-,198	.011
	8o	001	055	-,021	042	017	018	035	008	058	0	022	.022	131 066	.032
	- 20	.024				- 197		.340		.013		297		450	
55	1 2	.229		.363				.,40						1	
	10	1	218		268		150		-,023		.060		.188		.211
	20		280		234		128		054		.019		.103		.123
	30	1-77	238		222	-,130	138	185	017	247	025	320	.045	388	
	140 50	052		070		-,120		130		203		250		302	
	I &	051		068		090		119		160	:	190		~.250	
	70	037	102	038	105	060	071	090	038 009	102	036	128 066	018	180 118	022
	80 90	.010	030	002	038	008	.010	030 .018	.030	.015	029	010	032	063	.016
75	1 %														
10	1 3	.130	1 ===	.078		070		248		418		669		638	
	10		289		⊸.25 9		118		.010		084		.182		.228
	20	- 	253		237 198	-,130	130	192	035	267	026	352	-030	412	.060
	30 40	028	187 215	~.063 085	212	134	-,119	180	092	244	062	299	008	337	.030
		070		~,100		135		168		218	- 5.5	240		262	
	50 60	042	132	068	141	096	110	120	-,080 -,047	152	060 043	179 120	038 020	200 138	012 011
	70 80	023	075	005	096	062	078	014	047	030		050	020	057	011
	8	.050	.030	.030	.013	.037	.020	.028	.038	,019	.012	008	.012	027	.020
95	1 7	.097		.260		.483		,180		-337		.184		,127	
,,	3	.097		.070		080		248		421	lI	-,588		+.522	
	10	.034	-,260	003	230	-,110	103	218	-,013	322	057	-,500 -,360	.137	485	.162
	20	052	196	078	198	132	140	-,181	089	234				-,412	
	30 140	082	130	097	130	-,110	115	130	~.097	158	090	188	069	240	060
		085	-,100	085	107	092	090	106	078	~.127	080	-,140	065	190	070
	50 60	050	~.060	048	068	055	052	060	068	070	070	090 052	055	-/141 -/113	060
	70	005		.001		005	1 :::	010		020		.018		027	
	80	.059	.080	.050	.080		.079		.069		.052		.040		.028
													~	NAC	~

TABLE VII. - CONTINUED

(f) M,0.82.

Per_							Angle	of attack	degrees						
Per-	Per-	·	4		ē			r	2				6		7
Seni-	chord	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lover	Upper surface	Lovet	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lower
12.5	0			7.7.7						T = = -				7	
	2.	0.228		0.117		0.010		-0.102 089		-0.27k 218		-0.439 371		161	
	10	11.7		.009											
	30	.025	-0.221	016	-0.183	089	-0.108	-,150	-0.048	-,231	0.032	341	0,112	410	0.139
	40	019	232	062	204	131	132	180	063	-,259	016	359	.059	,411	.081
	50	059		~.095		166	- 7,5	209	113	278 262	052	371 331		1429 388	.022
	60 70	073	-,232 -,221	105	212 200	167 172	162	200 203	121	244	076	334	-,027	352	012
	l ao	052	171	082	-,161	126	124	-,145	095	181	052	~.222	011	255	.002
	90	028	081	040	075	073	055	080	040	109	019	-,130	.009	150	.015
35	3	.153	===	.070		108		258		438		798		792	
	l ío		350		~,299		148		019		.099		.189		.215
	20	.002	-,2,2	041	256	~.145	-,157	209	-,060	-, 342	.029	542 446	-100	632	.130
	30	031	262	079	252	165 181	180	210 209	098	307 278	029	370	.029	935	.064
- 1	50	068 080	218	112 112	210	160	179	-,170	114	235	071	301	029	358	010
	60	060	158	085	-,163	-,132	135	139	092	177	056	229	~.132	273	014
	70	041	102	052	166	089	091	090	057	121	~.030	163	017	199	008
	100	.002	030	017 .016	041	030 013	028	039 .012	005	051	.009	089	,011	-,128 -,061	.029
22	i ~	.253		.107		.485		.370		.002		270		391	
	,						- 7.5				.072		.164		-203
	10		186	:::	253 228		160 147		068		.024	:::	.099	1:::	.120
	30	1:::	26% 220		-,215		160		090	1 = = =	020		.033		.059
	1 50	~.050	-,	079		150		-,190	1	249		330		380	
	50	064		00		143		170		210		258		298	
	60	049		072		110 081	081	130	060	160	046	190 150	025	238 180	026
	70 80	025	023	-,040	099	025	029	025	004	039	0	072	.011	107	.012
	90	.038	.023	,022	.020	.016	.017_	.015	.015	.012	.024	-,020	.024	060	.017
77)	0							198	===	116		648	===	681	:::
	10	.120	270	.079	245	071	-,102	196	001		.113		.184		.212
	20	1 ===	-,258		-,212		117		043		.052		-110		.128
	30	032	198	8رە.–	183	127	129	182	073	250	017	353	.02%	119	-034
	140	051	198	- 080	198	136 126	-,140	-,170 -,158	091	224 194	030	289	.005	338	.018
	%	042	127	069	132	-,072	110	110	074	138	040	170	021	197	023
	70	020	075	040	060	068	066	069	043	080	020	102	010	135	020
	80	.001		002		~.003		-,012		-,014		,032		060	
	1.0-	-021	010	- 040	.028	423	_,027	.040	.028	.330	.030	208	.040	028	.018
95	1 3	.0:40		.310		090		222	1 2 2 2	129	1	554		510	131
	io	.025	252	.004	228	115	-,106	188	020	330		190	.145	168	.152
	20	0-,8	190	o t o	190	-,140	146	172	098	~.229		350	.010	382	.018
	30				128	116	120	129	100	112	===	180	071	218	-,060
	100	081	120	097	101	116	096	099	080	110		- 130	060	167	-,072
	1 %	016	050	068	068	052	050	060	048	056		080	045	-,120	056
	170	0		.010		.004		0		002		040		082	
	8o	.072		.017		.049		.048	.080	.055	1:::	.036		c	.022
	10		.088		.085		.082	<u> </u>	.000				.050		.022

(g) M,0.84.

Per-							Angle of a	ttack, degr	.000				
cent	Prr-				,		0						6
Semi- span	c+nt chord	Upper surface	Lower	Upper surface	Lownr surface	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lover surface	Upper surface	Upper surface
12.5	0	0.228		0.140	===	0.017	===	-0.101	===	-0.267	===	-0.430	===
	10 20	- 139				015		102	===	210	1 ===	356	0.100
	\$0 \$0	.019 021	-0.221 239	030 079 111	-0.198	099 133 155	-0.105 -,132	145 200 226	-0.060 098	232 268 277	0.027 021	339 359 372	.040
	50 60 70	073 081 100	250 230	121 139	23B 230	- 154	162 160	- 225	127 139	277	069 086	- 359 - 346	018 040
	80	061	175	100 060	195 091	125	129 057	166 094	112	197 118	068 029	- 212 - 136	026 001
35	0	.150	===	.072	:::	-,102	:::	258	===	-,431		882	===
	10 20	o	360 300	017	300 262	145	135 150	218	028 070	332	.092 .022 028	513	.178 .098 .033
	30 40 20	035 070 078	265	082 112 112	232	162 168 160	173	210 210 190	107 	304 279 230	072	358 890	030
	66 10	- 059	160 100	086	173 107	117	126 078	150 100	098 058	174 119	053 028	212 152	026 012
	80 90	.030	028	020	045	- 020 - 030	020	028 .018	·	-,045 .016	.010	073 013	.022
55	0	.268		.390	===	. 193	:::	.390	111	.038	===	239	===
	10 20	===	196 272	===	278 250	===	140 127		058 058	===	.067 .014 027	===	.160 .090 .032
	30 50	055	- 230	095	230	130	140	183 162	090	258		311	.032
	1 60	048	098	066	114	099 080	072	130 092	060	164 133	041	- 190 - 119	026
	80 90	.009 .040	025 .020	010 .015	042	024	012 .030	020	005 .041	042 .010	005 032	060 013	.013 .041
75	3	.112	276	.070	249	090	098	210	===	400	.112	660	
	20 30	035	215	060	208	130	111 130	175	038 086	248	.048	340	.110
	50	050 073	200	080 094	197	134 133	134	169 157	088	222	034	280 226	
	60 70 80	0A7 023	130 075	042	137 080	090 060	096 062	109 065	070 042	135 079	0A2 020	162 098 030	025
	90	.006	.026	.005 .047	.028	005 .045	.028	007 .048	.036	013 .038	.040	.010	.026
95	3	.159	268	.322 .067 010	247	090	107	228 198	021	-,347 -,347	.068	.226 590 502	.130
	10 20 30	.037 053	203	087	218	116 138	-118	180	108	242	050	343	010
	30 40 50	078 068	132 110	095 075	112 110	109 090	113 090	122 100	102 068	130 117	089 073	170 130	078 079
	70	032 .009	068	040	075	040	062	045 .003	062	065 013	058	082 037	063
L	90 _	.062	.080	.055	.078	.058	.084	.058	.077	.052	.063	.034	.044

TABLE VII. - CONTINUED

(h) M,0.86.

	I						ungle of att	ack, degro					
Per- cent	Per-				2	-							6
Semi- span	cent chord	Upper ·	Lover surface	Upper surface	Lower surface	Upper aurface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover
12.5	0 5 10 20	0.230	===	0.162	===	0.021		-0.090 091	===	-0.255 200		-0.12 542	
	30 30 50	028 069 061	-0.234 245 272	012 061 095 111	-0.191 219 241 228	091 132 166 170 191	-0.111 111 175 180	132 190 220 222 239	-0.060 094 125 139	234 265 291 281 294	0.028 019 062 081	-, 324 -, 349 -, 368 -, 390 -, 392	0.108 .051 009 012
	70 80 90	101 070 037	250 155 106	139 090 058	191 099	127 089	145 069	170 099	124 055	118 118	070 020	254 139	033
35	0 5 10 20 30	.158 009 0A2	383 338 300	.090 050 060	329 288 272	160 160	160 170 192	266 239 223	030 080 112	564 370 333	.075 .009 049	-1.010 530 550 358	.180 .090 .032
	40 50 60 70 80 90	090 088 070 040 010	233 172 120 047	110 110 060 010 .018	222 172 120 047	187 160 128 097 035	175 137 095 045	223 193 150 102 032 .020	130 108 068 012	300 248 168 131 068 .005	075 043 009 010	272 204 131 067 002	030 029 002 015
55	0 5 10 20 30 40 50 60 70	.263 050 074 050 060 .008 .038		.387 		.148 148 140 109 080 021	148 148 158 158 080 020	.395 182 167 125 102 001	050 060 060 060	.079 242 202 151 115 037	.060 .022 020 036 .010 .038	250 271 270 164 110 038 .012	.170 .096 .040 018 .021
מ	0 5 10 20 30 40 50 60 70 80	.129 027 050 072 045 020 .007	- 262 - 263 - 263 - 205 - 205 - 112 - 070	.083 055 080 091 060 038 .080	270 217 215 207 140 082	0/8 	113 120 148 147 120 070	210 178 177 160 110 068 009	029 092 092 092 072 047	-, \$12 -, 259 -, 232 -, 205 -, 142 -, 090 -, 020 -, 038	.100 .043 .042 048 054 030	720 338 270 218 157 090 020	.199 .122 .020 .012 013 0
95	0 5 10 20 30 40 50 60 70 80	.150 .101 .032 062 088 080 040 .002	280 204 130 108 062	.310 .072 008 092 	254 219 140 108 067	-, 192 -, 088 -, 118 -, 150 -, 113 -, 095 -, 048 -, 066	122 168 118 096 067	-,194 -,240 -,217 -,200 -,130 -,122 -,062 -,007 -,052	025 112 103 087 067	.362 450 347 236 130 118 056 014 .048	062 068 080 079 062	.223 629 526 340 178 137 082 038 032	.130 013 080 077 062

(i) M,0.88.

Per-		Angle of streek, degrees												
cent	Per-	-		_	è				5		٠	1	5	
Semi span	cent shord	Upper surface	Lower surface	Upper surface	Lover surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lover surface	
12.5	0			= =.=				1 77.	:::		===		:::	
	.5	0.200		0.160		002		-0.085 085		-0.245 207	1	-0.412 343	:::	
	10 20				===	002					===			
	30	.001	-0.209	009	-0.192	079	-0.106	-, 144	-0.033	238	0.024	3kk	0.112	
i I	4o	042	229	059	-,218	130	147	-,188	074	268	030	348	.057	
	50	083		098		168	176	218 219	110	300 310	072	377 389		
i I	60 70	102 114	- 265	110	245 244	169 171	185	220	122	309	092	113	030	
	<u>د</u> د	083	209	095	190	110	145	160	094	237	078	357	021	
	90	0k9	107	060	~.096	076	079	094	039	∽.133	041	167	.004	
35	0	.090		.080		088		268		578	===	-1.093		
	3		329		332		150		008		.083		.183	
1	20	⊸.048	330	037	266	148	162	230	056	360	.020	510	.100	
i	30	075	298	098	-,282	165 178	182	230 230	098	335 302	038	497 470	.032	
	40	110 120	240	103 110	222	170	175	190	110	240	077	286	028	
	50 60	088	187	078	180	120	126	- 144	082	187	063	180	027	
	70	06A	-,120	052	108	080	~.088	090	045	124	030	119	013	
	èο	024	049	006	O/S	020	022	÷.028	.013	049	.020	057	.020	
	90	.022		.030		.022		.032	_		_			
55	0	.326		.394		.488		.380		.094	===	~.210	===	
	5 10	1 ::::	178		260		160		025	===	.078		.170	
1 1	20		262		255		140		057		.020		.094	
1	30		230		238		152		080		029		.040	
	i io	090		098		130	===	190 170		260 213		257 222		
	.60	062		098 075	===	100		128		168		168		
	70	045	093	056	105	072	-,080	- 090	048	∽.120	~.047	113	022	
	ào .	.005	010	002	030	018	014	024	001	034	.007	Ok0	.022	
	90	.037	.035	.035	.024	.024	.035	.020	.03k	.020	.035	.022		
75	•			l i								982		
l ''	5	.081		.092	26A	057	100	222	.020	.138	.108		.199	
	10		238 220	1 222	-,209		092		012		.054		,122	
	30	052	162	052	-,170	117	093	178	035	260	.008	293	.062	
	ίο	077	200	070	200	128	138	175	082	236	024	258 218	.012	
	50	080		086	130	118 077	080	~.158 ~ 110	062	202 140	 048	150	010	
1	60	058 026	122 06A	052 030	130 062	050	052	064	037	087	030	086	012	
1 1	70 80	.080		.038		.011		003		020		023		
	90	.050	.036	.058	.036	.058	040	,048	.048	.040	-035	.033	.032	
95	0	.234		.302		. kgt		.509 240		.364 480	===	.207 -,782		
	.5	.047	244	012	-,258	080	127	-,210	008	368	.064	598	.142	
i l	10 20	006 092	200	100	217	150	171	190	101	-,242	061	362	004	
ı	100			[-					-				082	
1	30 No	~.108	130	100	138	110	126	118	100 080	150 132	097 072	162 121	002	
	50 60	087	108	099 058	107 067	095 048	099 060	092 037	050	060	055	077	050	
	60 20	038	060	1 2.000	001	.010		.012		010		035		
i l	70 80	.172		1.108		.079		.072		.054		.035		
	90		.087		.068		.088		.088		.070		.050	
												NAC	~	

TABLE VII. - CONTINUED

(j) M,0.90.

	,					Angle of att	ack Astrono		_		
Per-	Por-						0			1	A
emi- emi- epan	cent chord	Upper surface	Lover surface	Upper aurface	Lower	Upper surface	Lower	Opper surface	Lover surface	Upper surface	Lover surface
12.5	9	0.219	===	0.140	:::	0.030		-0.099		-0.224	:::
	10	.136		.08₂		001	===	091		187	
	30	.012 039	-0.224 241	030 081	-0.200 225	094 139	-0.131 164	157 191	-0.048 091	222	0.019 ~.029
	50 60	082 100	263	121 139	272	180 192	207	232 240	133	309	080
	70 80	115 094	305 262	1i1 129	280 231	209 171	213 079	262 206	132 120	330 232	096 080
35	90	052	125	081	125	106	104	115	062	132	044
3,7	10	.110	378	.053	330	992	1f0	-273	028	575	.065
	20	042 075	~.360 350	065	300 310	150 152	1c8 215	253 261	075 120	360 375	060
	1 50	108	245	132	231	193 170	- 168	249 200	130	362	090
	70 70	092	190 128	102	180 110	130	1\5 092	153 110	060	185	040
	80	025	062	025	048	025	025	030 .015	010	060 .003	
55	0	.330	===	.408	-::	.491		.386		.135	. ::::
	10 20		228		320 270	:::	200 160	===	049 070	===	.018
İ	30	075	262	110	2%	158	172	570	092	248	030
	50	069		120 095		148 120	:::	- 1f2 - 150	===	201 155	040
	80	005 002	102 075	075 014 .013	120 055	0% 020	092 030	108 028 .018	060 003	108 028 .029	.010
75	90	.020									
	20	.100	287		2/4	060	133	238	007 026	517	.098
i	90	052	248 197	0%	209 1f5 213	130 157	112 138 157	205 195	065 102	248 230	001 047
l	50 60	070 092 060	230	102	145	145 106	112	178 130	080	199 135	049
ŀ	70 80	060 037	090	012	090	070 020	078	080	058	061	030
	20	.040	0,0	.030	.024	.030	.025	.045	.022	.044	.045
95	9.	.210	1 ::::	.310		.183	===	.498 248	===	.384 498	===
	10 20	.008 102	262	00	202	130 178	147 206	230	023 131	365	076
	30	112	145	122	138	139	131	140	112	14/	100
	50 60	079	112	099 060	111 078	092	110	112	098 058	105	056 058
	70 80	007		.051		.006	111	005		008 700.	.076
	90		.084		د8ه.		.070		.082	1	.078

(k) M,0.92.

		-,		Angle of attack, degrees											
Per-	1.			т .			o .	2							
cont	Per-			 						Coper	Lover				
toti -	chord	Upper	Lover	Upper	Lover	Upp~r	Lower	Upper	Lover	surface.	surfa:e				
apan	1	surface	surface	surface	surface	sur face	surface	surface	surface	eur i ece	30.4.4				
12.5	1			I											
16.7	1 5	0.248		0.160		0.019		-0.091		-0.220					
	16	.162		.100		-:002		091		170					
	20		1												
	30	Beo.	-6.222	012	-0.191	099	-0.096	168	-0.039	218	0.032				
	1 40	010	239	067	223	137	137	202	o85	249	013				
	50	070		108		189	l	239		280	071				
	66	099	268	-,132	272	208	189	267	131	309	071				
	70	091	309	150	291	232	206	291	158	336	09/i				
	l ão	095	÷. 302	~.130	268	204	184	~.273	138	- 339	042				
	90	060	212	089	160	129	090	179	078	261					
35	0						===	322		600					
	1 5	.122		.068	- 7.5	125	138	322	020		.065				
	10		367	- 5.5	328	182		-,292	078	376	002				
	20	023	352	060	305		162	320	-,130	309	065				
	30	065	352	100	-,333	210	200	320	150	418					
	1 40	099		135		220 178	178	295	142	-, 132	100				
	50	110,	358	120	293 163	128	128	162	113	210	075				
	60	~.075	180		112	086	081	110	068	105	000				
	70	050	100	060	050	032	012	050	0	050	0				
	80 90	008	032	070	020	.020		800.		.008					
		.278		.110		.493		.354		-137					
55	1 3	.276	1 :::		1										
	16	1	210		-, 370		150		019		.044				
	20	1	326		276		142		051		.010				
	30		226		250		158		080		038				
	1 võ	060		100		177		230		230					
	50	071		100		152		198		212					
	60	049		090		120		147	060	170	050				
	70	040	101	074	127	110	 08ο	oan	010	033	.001				
	Bo .	.012	030	010	033	022	010	045	.038	.010	.042				
	90	.041	.024	.020	.010	.020			.0,0						
75	0			.084		111		272		~.590	:::				
	. 5	.084			280		098		.012		.101				
	10	1 :::	263 248	===	209		090		019		.053				
	20	024	200	060	192	153	111	226	062	270	±,00¥				
	30 .	020	211	082	-,215	160	157	212	098	237	o48				
	1 50	069	241	095		158		202		219					
	66	037	136	064	140	108	101	110	080	150	048				
	70	020	066	042	087	074	069	093	052	087	028				
	l éo	.020		.008		011		029		029					
	‰	.061	.042	.052	.032	.040	.027	.030	.025	.026	.040				
95		.160		328		-513		.490		.383	===				
	1 5	.060		.070		122		301		607 360	.072				
	10	.030	282	027	+.252	148	099	268	128	326	077				
	20	~.070	278	110	298	207	192	292	120	320	017				
	30							138	-,115	-,146	100				
	No.	086	146	115	131	122	115	106	092	117	081				
	50	072	099	082	095	098		055	042	061	042				
	60	031	058	040	050	0k5	045	005		005					
	jo.	.016		.015		.007	322	007		.057					
	80	.079	.095	.064	.101	.070	.100	.031	.oes		.081				
	1 90	1	1 .097		1		1.200								

TABLE VII. - CONCLUDED

(1) M,0.94.

Per-	<u> </u>					Angle of attack, degrees						
cent	Per-		-	-2			0	- 2	2		4	
semi- span	cent chord	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	Upper surface	Lower surface	
12.5	0 5 10 20	0.250 .176		0.179		0.046		-0.079 079		-0.200 153		
	30 40 50 60 70 80 90	.041 014 068 093 121 111 087	-0.218 239 288 308 310 280	.010 039 091 120 155 140 105	-0.154 180 237 261 269 230	088 139 176 204 240 231 205	-0.104 145 209 241 239 080	139 182 217 243 278 279 250	-0.024 065 129 160 150 091	208 246 260 299 330 332 310	0.025 022 093 125 120 088	
35	0 5 10 20 30 40 50 60 70 80 90	138 		040 092 140 180 150 113 070 020 .015				- 288 		539 370 372 402 450 390 168 050	.050 025 095 130 005 060 005	
55	0 5 10 20 30 40 50 60 70 80 90	.312 068 073 049 048 .022		.428 100 108 079 065 008		.469 		.370 188 180 150 155 028 .030	 - 038 - 070 - 088 - 052 - 008 - 038	.215 332 176 117 093 017	030 008 048 	
75	0 5 10 20 30 40 50 60 70 80	 .121 025 049 074 042 023 .020		.078 060 084 096 063 040 .018	 260 200 190 199 130 080 			253 213 190 188 129 080 020 .034	023 0068 066067 040032		.087 .045 .025 025 057 057 040	
95	0 5 10 20 30 40 50 60 70 80	.180 .097 .039 060 082 073 035 .018		.360 .063 018 129 		.500 090 130 205 127 095 050 .009	 130 227 127 100 061 .088	.500 302 252 280 112 086 042 .005		.410 573 .060 317 108 100 040 .012	385 097 101 085 030 078	

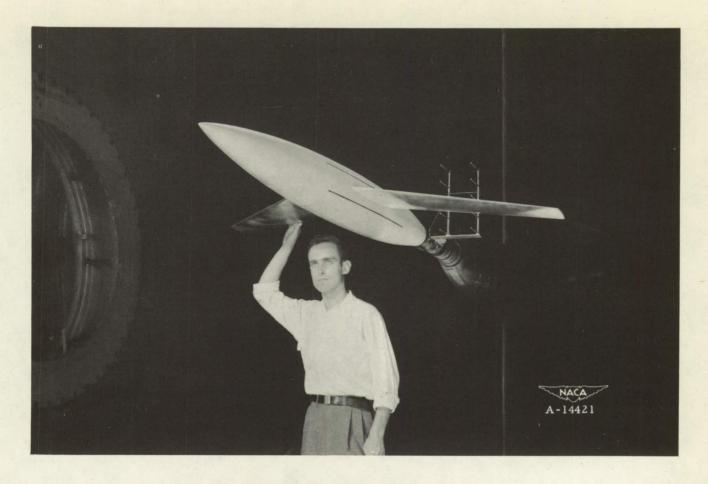
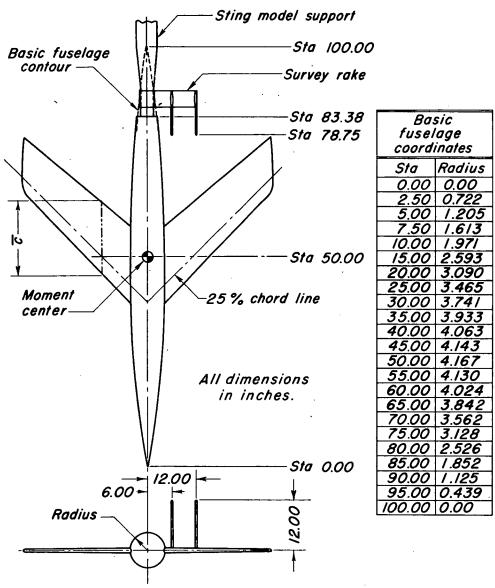


Figure 1.— Photograph of one of the wing-fuselage combinations and the survey rake mounted in the Ames 16-foot high-speed wind tunnel.

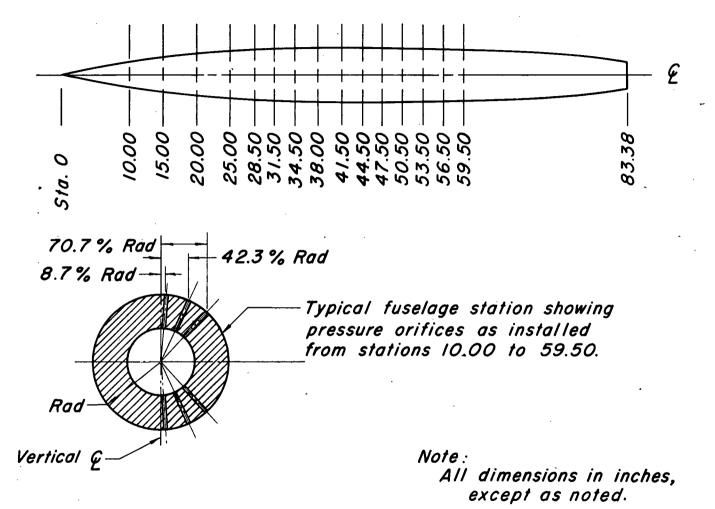


Note:

As actually used the basic fuselage was modified to provide sting clearance by increasing the radius at sta 83.38 to 2.25 inches and fairing forward with straight-line elements to the points of tangency with the basic shape.

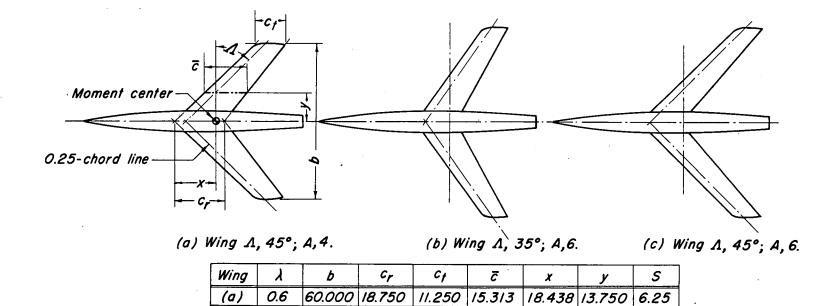
(a) Dimensions and coordinates.

Figure 2.—General arrangement of model showing a typical wingfuselage combination with survey rake in position and fuselage details.



(b) Fuselage pressure-orifice locations.

Figure 2.- Concluded.



Notes.

(I) Wing sections parallel to free stream are NACA 65A006 for all wings.

9.190 12.503 15.621 16.840 6.25

73.485 | 15.310 | 9.190 | 12.503 | 20.669 | 16.840 | 6.25

(2) Wings are mounted at zero angles of incidence and dihedral.

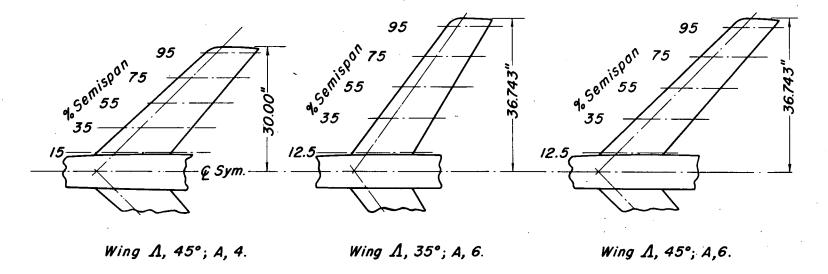
73.485 | 15.310

0.6

(3) All dimensions in inches and areas in square feet.

(a) Dimensions and details.

Figure 3.-Wing plan forms.



Note:

Twenty pressure orifices were installed at each wing station as follows: 0, 5, 10, 20, 30, 40, 50, 60, 70, 80, and 90 % wing chord on the upper surface and 10, 20, 30, 40, 50, 60, 70, 80, and 90 % wing chord on the lower surface.

(b) Wing pressure-orifice locations.
Figure 3.— Concluded.



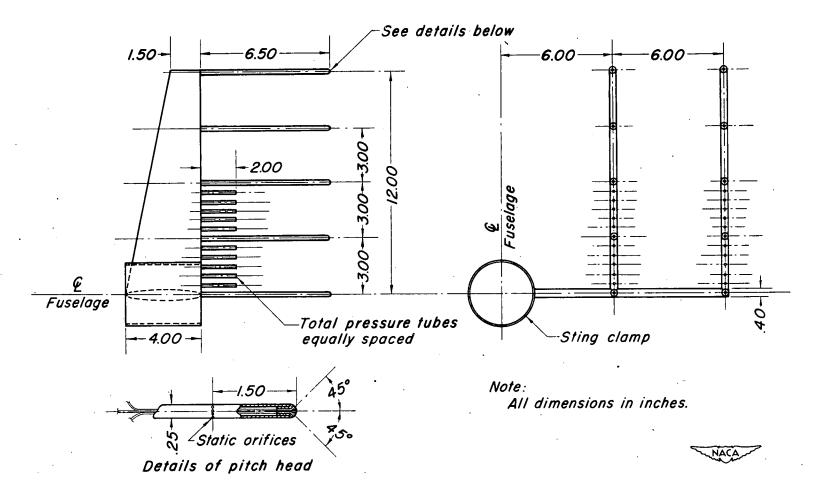
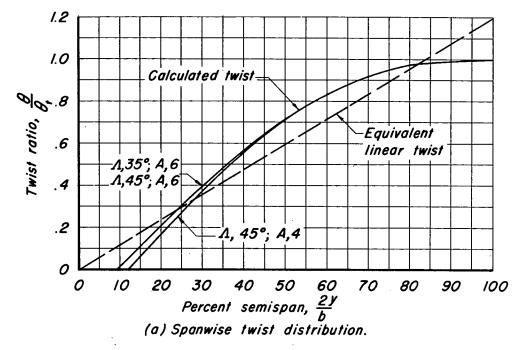
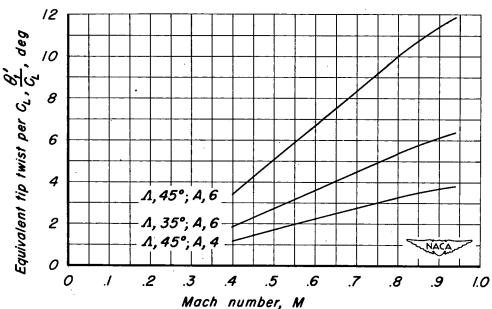


Figure 4.—Survey rake details and dimensions.





(b) Variation of equivalent twist with Mach number assuming linear twist distribution.

Figure 5.—Wing twist due to elasticity for the three wing-fuselage models under the conditions of test.

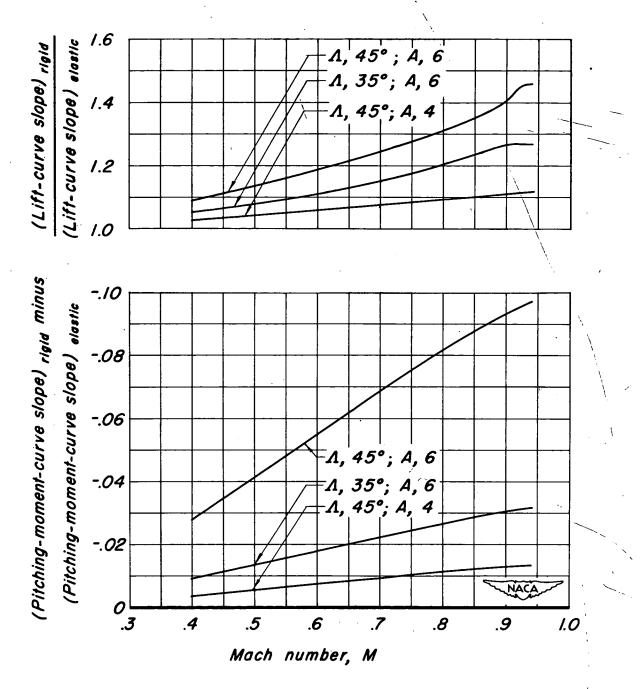


Figure 6.— Effect of aeroelastic twist on the lift-curve and pitching-moment-curve slopes for the three wing-fuselage combinations.

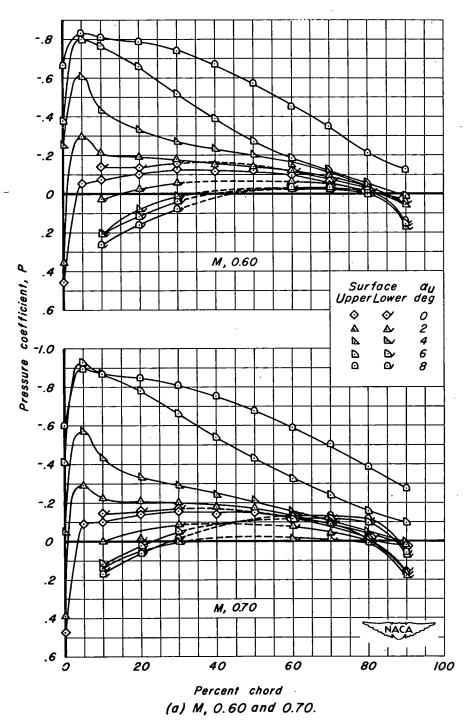


Figure 7.— Chordwise distribution of pressures on a wing having a sweepback angle of 45° and an aspect ratio of 4 in combination with a fuselage. 75% semispan.

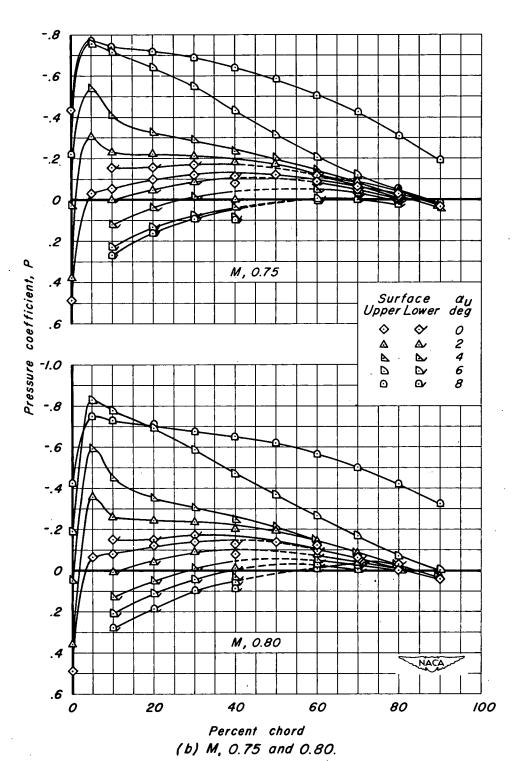
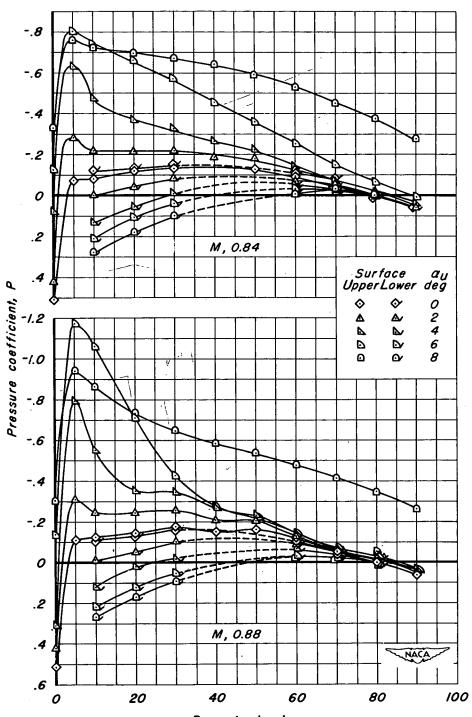


Figure 7.—Continued.



Percent chord (c) M, O.84 and O.88. Figure 7.- Continued.

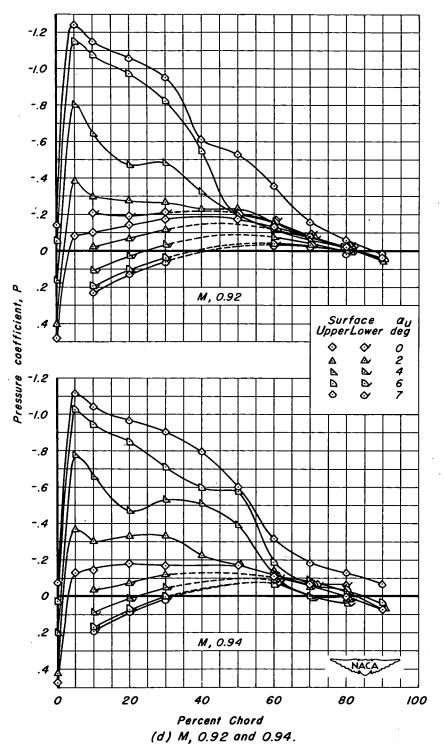


Figure 7.—Concluded.

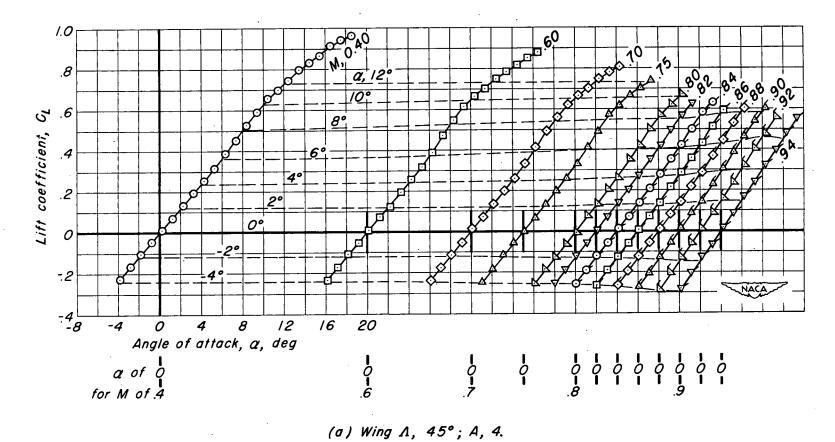
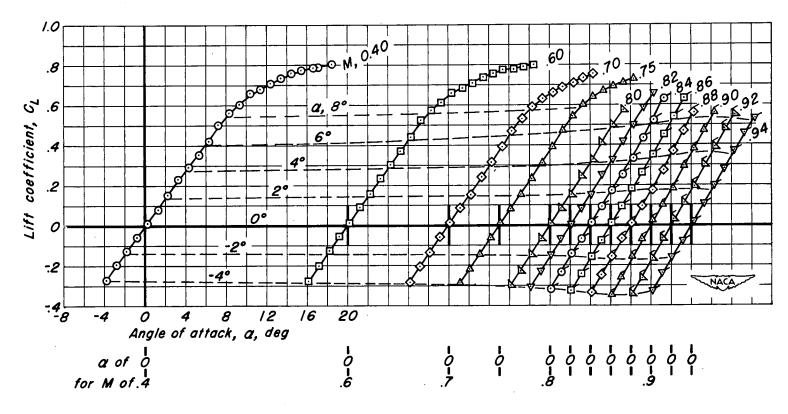


Figure 8.—Lift characteristics for the three wing-fuselage combinations.



(b) Wing A, 35°; A, 6.

Figure 8.—Continued.

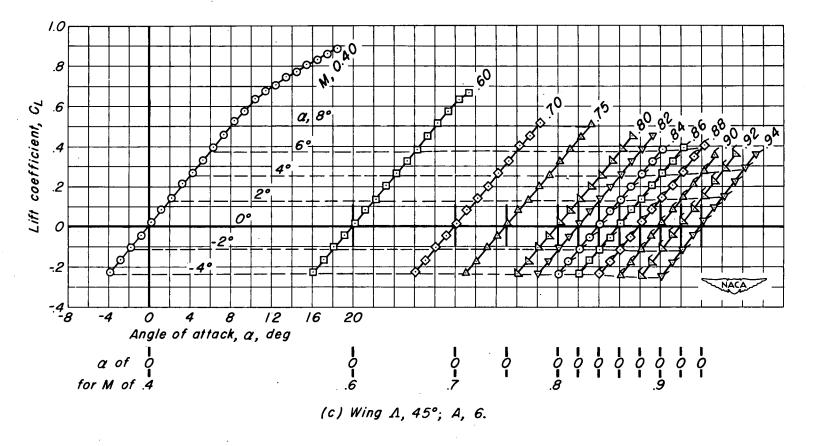


Figure 8.—Concluded.

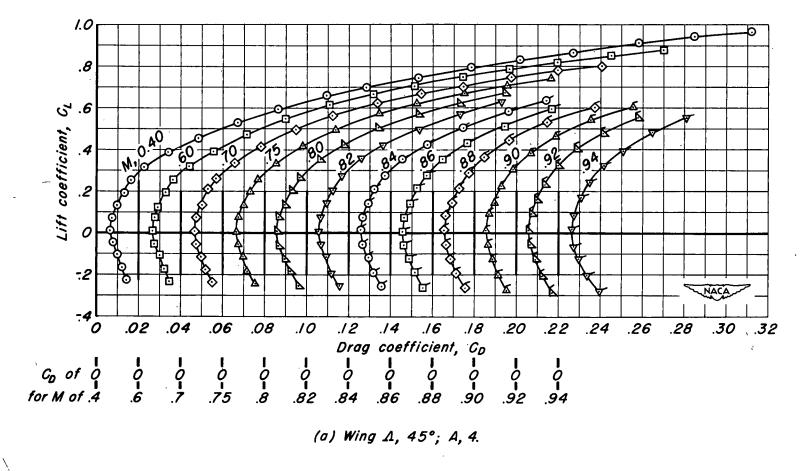
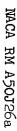


Figure 9.—Drag characteristics for the three wing-fuselage combinations.



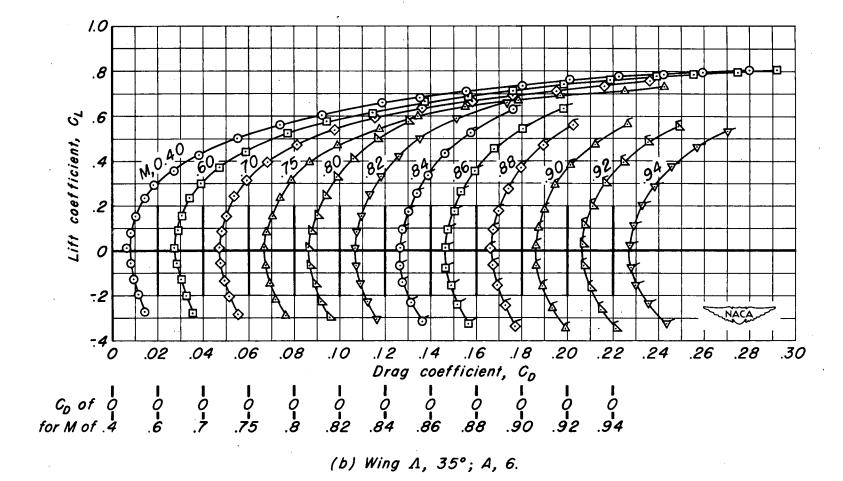


Figure 9.—Continued.

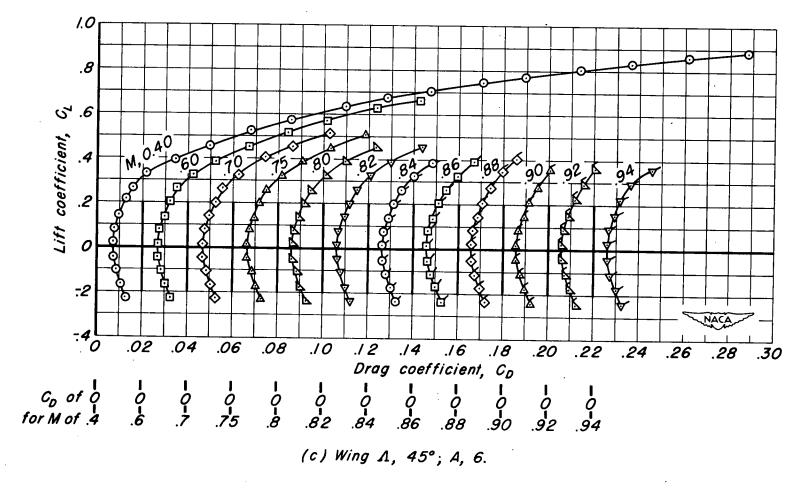


Figure 9.—Concluded.

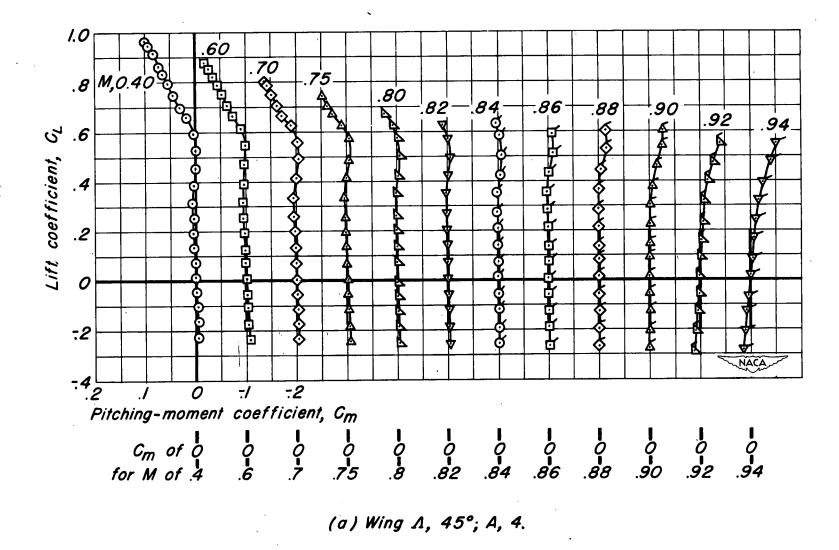
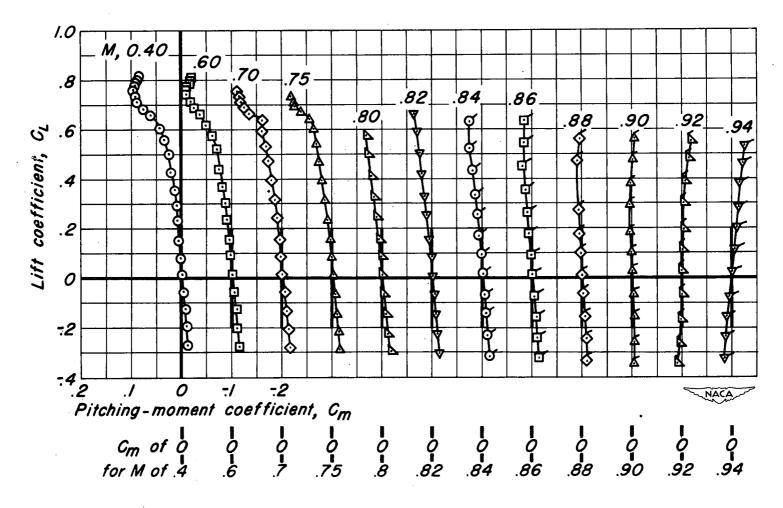
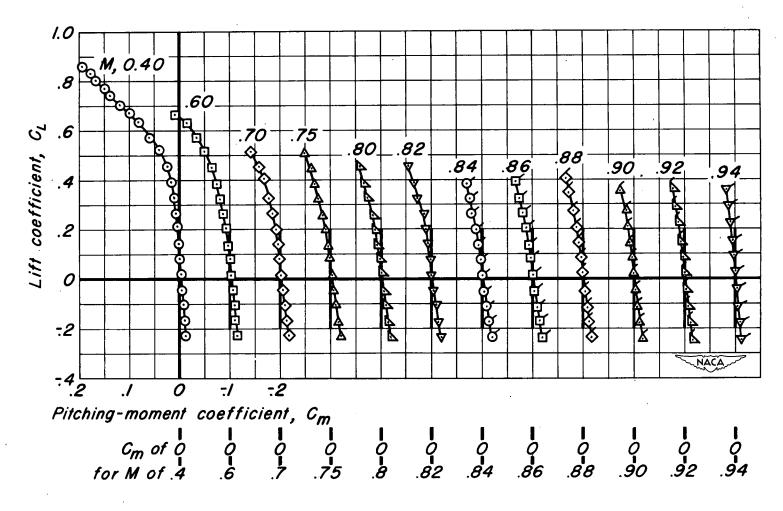


Figure 10.-Pitching - moment characteristics for the three wing - fuselage combinations.



(b) Wing A, 35°; A, 6.

Figure 10.—Continued.



(c) Wing A, 45°; A, 6.

Figure 10.-Concluded.

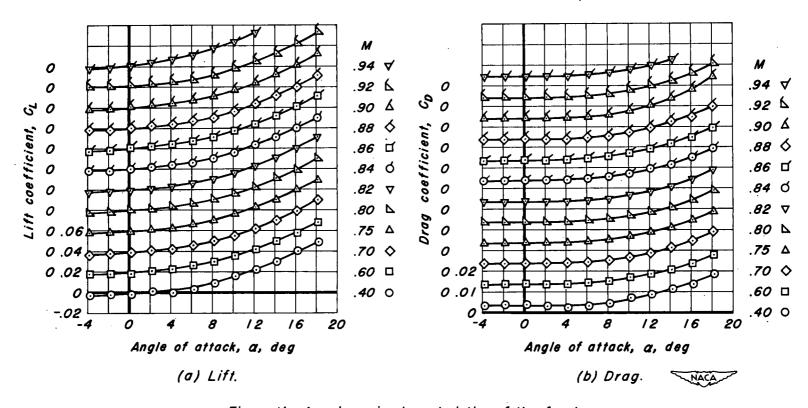
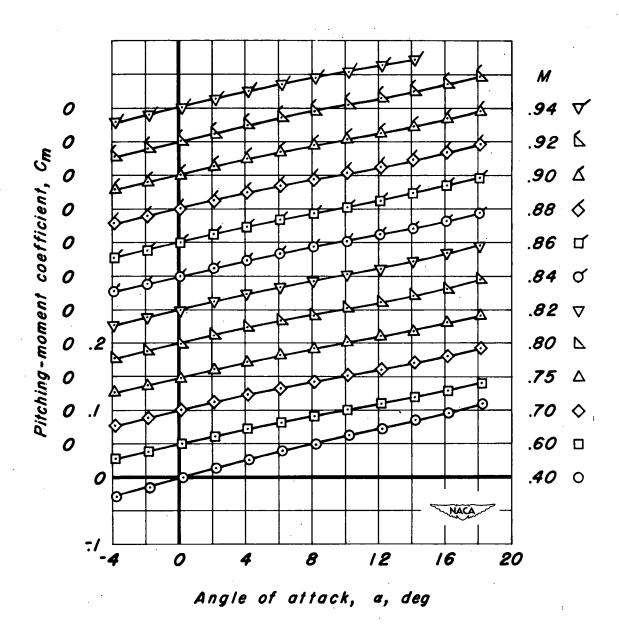


Figure II.—Aerodynamic characteristics of the fuselage.



(c) Pitching moment.

Figure II.—Concluded.

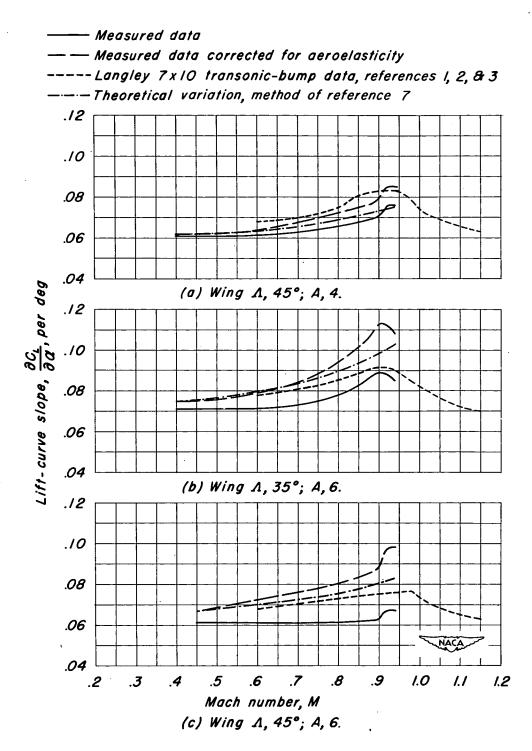


Figure 12.-Effect of Mach number on the lift-curve slopes of the three wingfuselage combinations. C_L, 0.2.

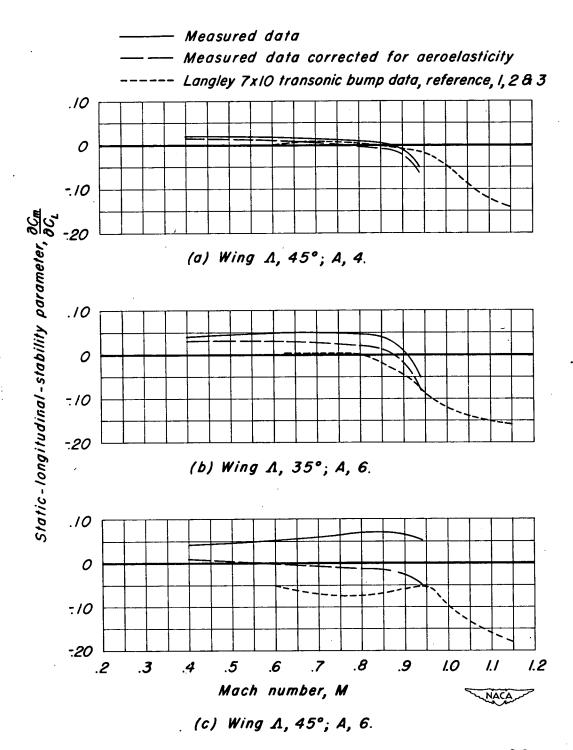


Figure 13.—Effect of Mach number on the stability parameter $\frac{\partial C_m}{\partial C_L}$ of the three wing-fuselage combinations. C_L , 0.2.

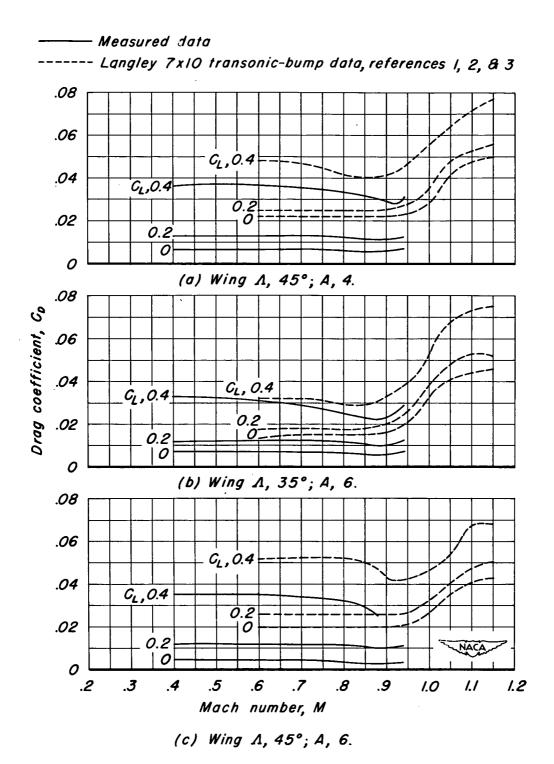


Figure 14.—Effect of Mach number on the drag characteristics of the three wing-fuselage combinations.

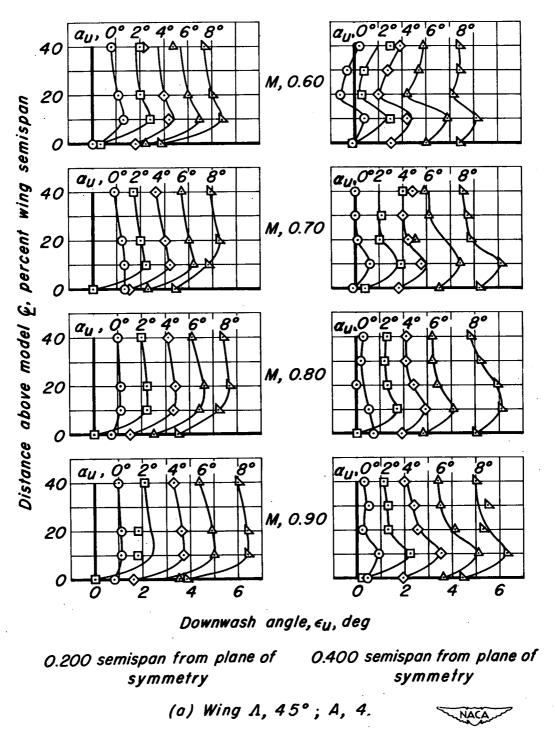
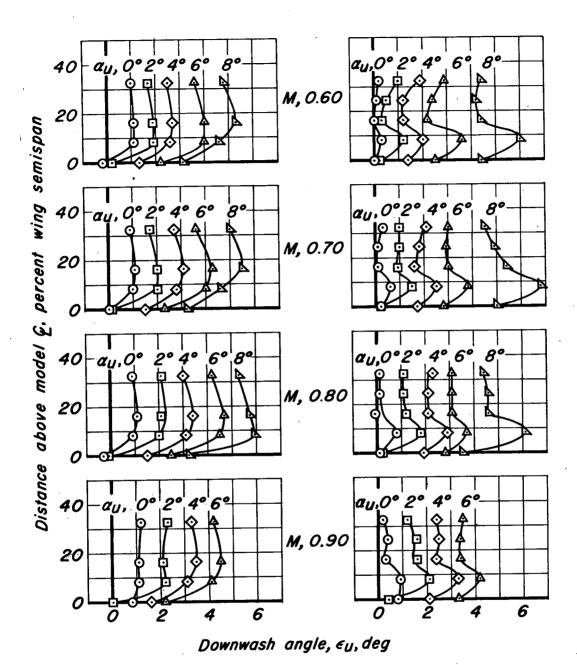


Figure 15.—Downwash angles at possible horizontal-tail locations for the three wing-fuselage combinations.

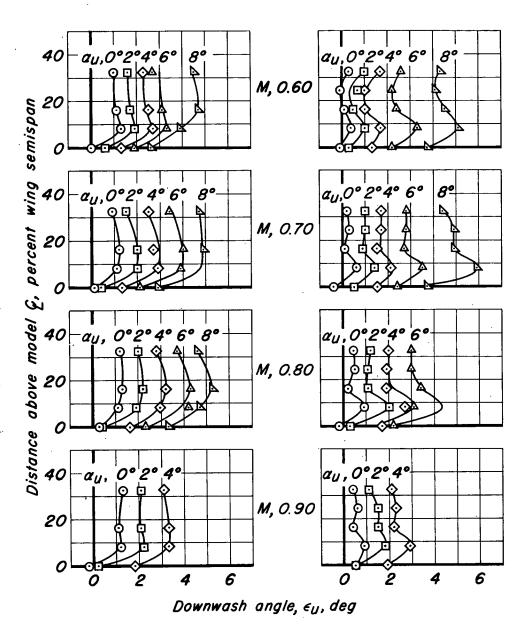


O.163 semispan from plane of O.326 semispan from plane of symmetry symmetry

(b) Wing A, 35°; A, 6.



Figure 15.—Continued.



O.163 semispan from plane of O.376 semispan from plane of symmetry symmetry

(c) Wing A, 45°; A, 6.



Figure 15.—Concluded.

Distance above model Q, percent wing semispan

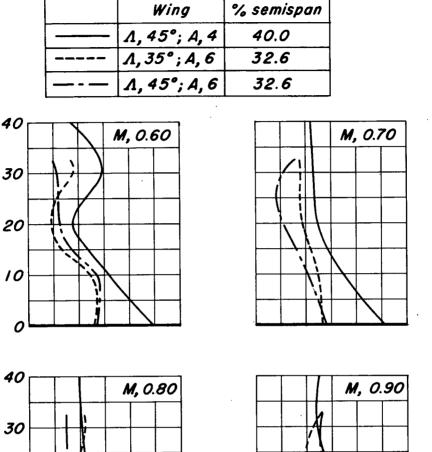
20

10

.4

.6

Downwash



Wake measurements

Figure 16.-Downwash gradients for the three wing-fuselage combinations, measured 12 inches from plane of symmetry. C_L , 0.2.

gradient, $\left(\frac{\partial \epsilon}{\partial \alpha}\right)_{\mu}$

.8

.6

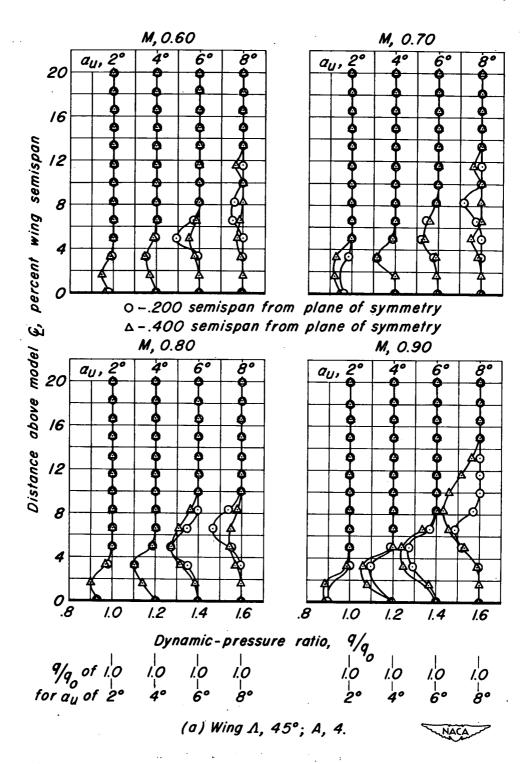


Figure 17.-Dynamic pressures at possible horizontal-tail locations for the three wing-fuselage combinations.

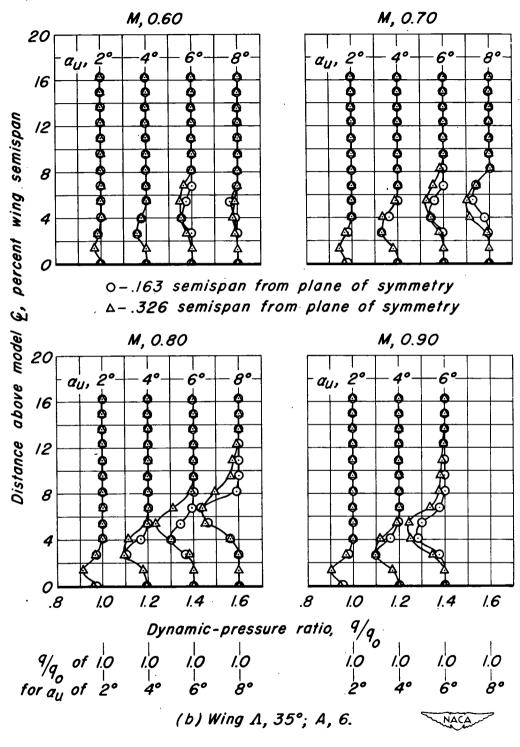


Figure 17.—Continued.

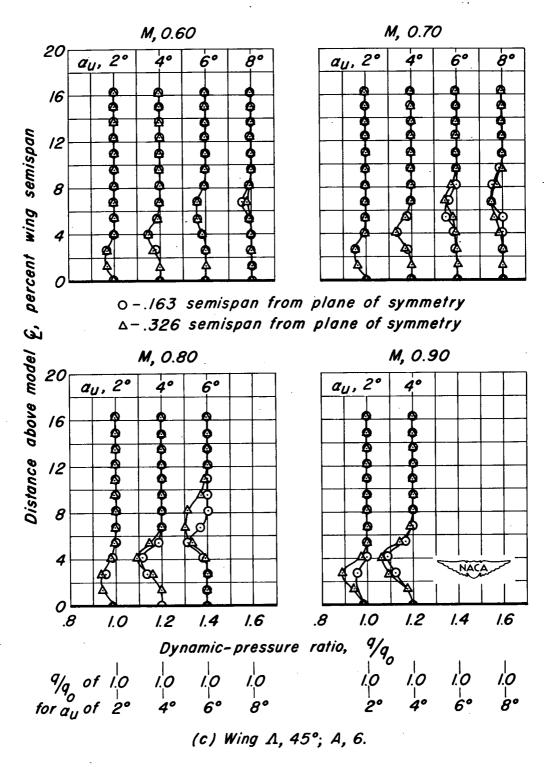


Figure 17.—Concluded.

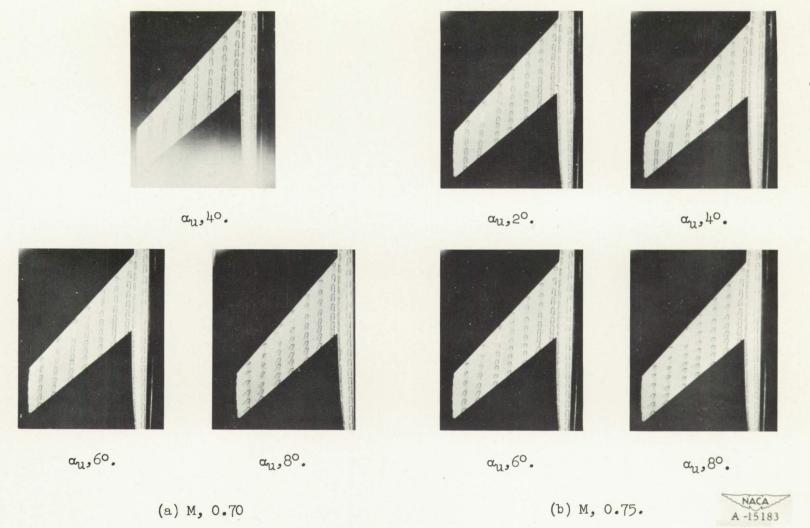


Figure 18.- Photographs of tufts on the wing-fuselage combination. Wing Λ , 45°; A,4.

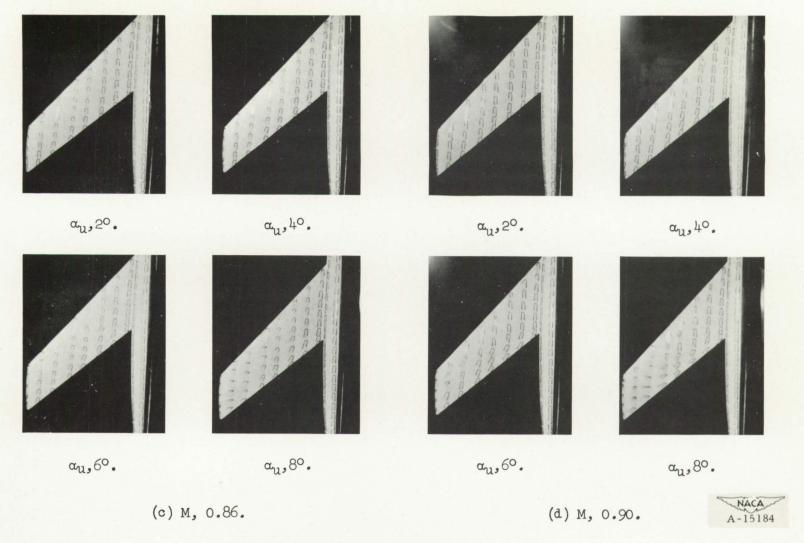


Figure 18.- Concluded.

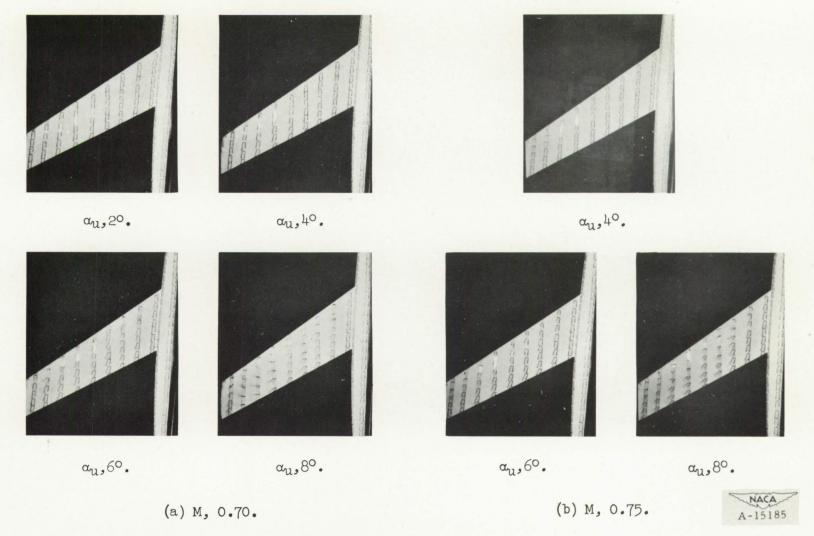


Figure 19.- Photographs of tufts on the wing-fuselage combination. Wing Λ , 35°; A,6.

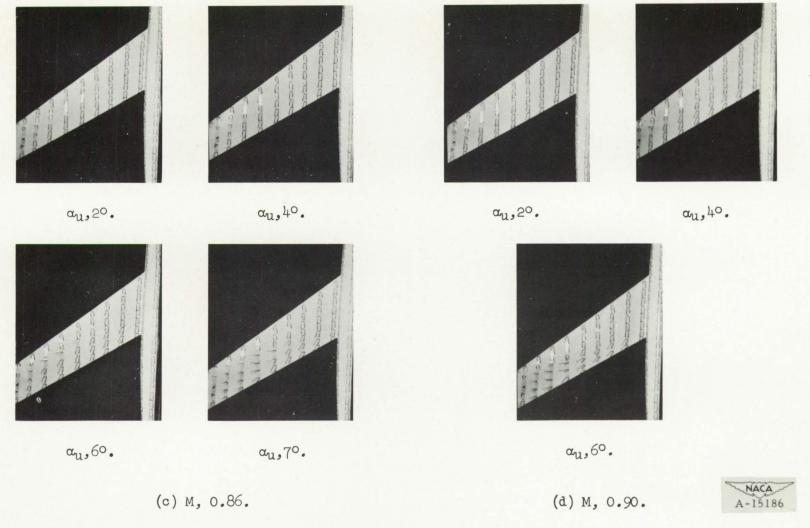


Figure 19.- Concluded.

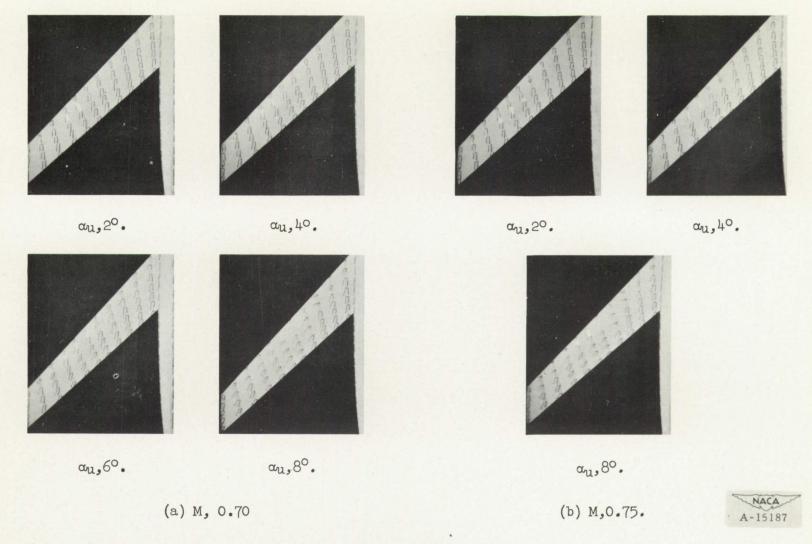
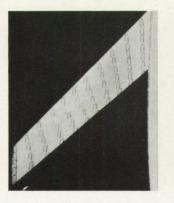


Figure 20. - Photographs of tufts on the wing-fuselage combination. Wing Λ , 45°; A,6.









au, 40.

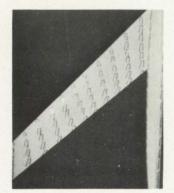
au,20.

au, 40.





(c) M, 0.86.



au,60.

(d) M, 0.90.



Figure 20.- Concluded.